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FIGURE 1

ATCGGTTAGCGCCTTGCCATGATTAAATCCAGAGCTGCGGGATGGCAGAGCTGATGGCTTCATACATCGGATAGTT
CCCAAGTTGATACAAAAGCTGGAAGATTGGCCTTATGTGCTTCCTGAGTATTATTATTACTACAGTTTGCATTATT
ATGATAGCCACATGGTCCAAGCATGCTAAACCTGTGGCATGTTTCAGGGGACTGGCTTGGAGTGAGAGATAAGTGT
TTCTATTTTTCTGATGATACCAGAAATTGGACAGCCAGTAAATATTTTGTAGTTTGCAGAAAGCAGAACTTGCT
CAGATTGATACACAAGAAGACATGGAATTTTTGAAGAGGTACGCAGGAAGTATATGCACTGGATTGGACTAAGC
AGGAAACAAGGAGATTCTTGGAATGGACAAATGGCACCACATTCAATGGTTGGCCATCAAACCTCCAAATGGTCT
TGCAACTGGAGCCTCCGACAATGGCTTCTTCTGCTGGGACCCCTTAGATAGGCCTCTGAGGGAGCTCTGACTGCC
GTTTCCCCAAACAATGTCCCCTGTCAGCAGGAAGCAGTTAAATCAGTCTTCATCCTTATCCTTAATATAACGGC
AGTTAGATGTACTTCTTTAGAGGGAGTAAATTTATCAATTCAGAGCAATTCATCCTCCTCTTTCCATCTTTGATT
CACAGTTAATAGGCTATAAATTTGATAATGTAGAATAAACTACAGAAAACCTTCTTG

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FIGURE 2

MINPELRDGRADGFIHRIVPKLIQNWKIGLMCFLSIIITTVCIIMIATWSKHAKPVACSGDWLGVRDKCFYFSDD
TRNWTASKIFCSLQKAELAQIDTQEDMEFLKRYAGTDMHWIGLSRKQGDSWKWTNGTTFNGWPSNSKWSCNWSLR
QWLLLLGPLR

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FIGURE 3

ATCTGTGGGAGCAGTTTATTCCAGTATCACCCAGGGTGCAGCCACACCAGGACTGTGTTGAAGGGTGTITTTTTT
CTTTTAAATGTAATACCTCCTCATCTTTTCTTCTTACACAGTGTCTGAGAACATTTACATTATAGATAAGTAGTA
CATGGTGGATAACITCTACTTTTAGGAGGACTACTCTCTTCTGACAGTCTTAGACTGGTCTTCTACACTAAGACA
CCATGAAGGAGTATGTGCTCCTATTATTCTGGCTTTGTGCTCTGCCAAACCCTTCTTTAGCCCTTCACACATCG
CACTGAAGAATATGATGCTGAAGGATATGGAAGACACAGATGATGATGATGATGATGATGATGATGATGATGATG
ATGATGATGAGGACAACCTCTCTTTTTTCCAACAAGAGAGCCAAGAAGCCATTTTTTTCCATTTGATCTGTTTCCAA
TGTGTCCATTTGGATGTCAGTGCTATTACAGAGTTGIACATTGCTCAGATTTAGGTTTGACCTCAGTCCCAACCA
ACATTCATTTGATACTCGAATGCTTGATCTTCAAAACAATAAAATTAAGGAAATCAAAGAAATGATTTTAAAG
GACTCACTTCACCTTATGGTCTGATCCTGAACAACAACAAGCTAACGAAGATTACCCCAAAAGCCTTTCTAACCA
CAAAGAAGTTGCGAAGGCTGTATCTGTCCCACAATCAACTAAGTGAATACCCTTAATCTTCCCAATCATTAG
CAGAACTCAGAATTCATGAAATAAAGTTAAGAAATACAAAGGACACATTCAAAGGAATGAATGCTTTACACG
TTTGGAAATGAGTGCAAACCCTCTTGATAATAATGGGATAGAGCCAGGGGCATTTGAAGGGGTGACGGTGTTC
ATATCAGAATTGCAGAAGCAAACTGACCTCAGTTCCTAAAGGCTTACCACCAACTTTATTGGAGCTTCACTTAG
ATTATAATAAAATTTCAACAGTGGAACCTTGAGGATTTAAACGATACAAAGAACTACAAAGGCTGGGCCTAGGAA
ACAACAAAATCACAGATATCGAAAATGGGAGTCTTGCTAACATACCACGTGTGAGAGAAATACATTTGGAAAACA
ATAAACTAAAAAAATCCCTTCAGGATTACCAGATTGAAATACCTCCAGATAATCTTCCTTCATTCTAATTCAA
TTGCAAGAGTGGGAGTAAATGACTTCTGTCCAACAGTGCCAAAGATGAAGAAATCTTTATACAGTGCAATAAGTT
TATTCAACAACCCGGTGAAATACTGGGAAATGCAACCTGCAACATTTCTGTTGTTTTGAGCAGAATGAGTGTTT
AGCTTGGGAACCTTTGGAATGTAATAATTAGTAATTGGTAATGTCCATTTAATATAAGATTCAAAAATCCCTACAT
TTGGAATACTTGAACCTTATTAATAATGGTAGTATTATATATACAAGCAAATATCTATTCTCAAGTGGTAAGTCC
ACTGACTTATTTATGACAAGAAATTTCAACGGAAATTTGCCAAACTATTGATACATAAGGGTTGAGAGAAACAA
GCATCTATTGCAGTTTCTTTTTGCGTACAAATGATCTTACATAAATCTCATGCTTGACCATTCTTTCTTCATAA
CAAAAAGTAAGATATTCGGTATTTAACACTTTGTATCAAGCACATTTTAAAAGAGCTGTACTGTAAATGGAA
TGCTTGACTTAGCAAAATTTGTGCTCTTTCATTTGCTGTTAGAAAAACAGAATTAACAAAGACAGTAATGTGAAG
AGTGCATTACACTATTCTTATTCTTTAGTAGCTTGGGTAGTACTGTAATATTTTAAATCATCTTAAAGTATGATT
TGATATAATCTTATTGAAATTACCTTATCATGTCTTAGAGCCCGTCTTATGTTTAAACTAATTTCTTAAATA
AAGCCTTCAGTAAATGTTTCACTTACCAACTTGATAAATGCTACTCATAAGAGCTGGTTTGGGGCTATAGCATATGC
TTTTTTTTTTTTAATTATTACCTGATTTAAAAATCTCTGTAAAACGTGTAGTGTTCATAAAATCTGTAACCTG
CATTTTAAATGATCCGCTATTATAAGCTTTAATAGCATGAAATTTGTTAGGCTATATAACATTGCCACTTCAACT
CTAAGGAATATTTTGGATATCCCTTTGGAAGACCTTGCTTGGGAAGAGCCTGGACACTAACAACTTACACCAA
ATTGCTCTTCAAATACGTATGGACTGGATAACTCTGAGAAACACATCTAGTATAACTGAATAAGCAGAGCATCA
AATTAAACAGACAGAAACCGAAAGCTCTATATAAATGCTCAGAGTTCTTTATGTATTCTTATTGGCATTCAACA
TATGTAAAATCAGAAAACAGGGAAATTTTCATTAATAATATTGGTTTGAAAAA

FIGURE 4

MKEYVLLFLALCSAKPFFSPSHIALKNMMLKOMEDTDDDDDDDDDDDDDDNSLFP TREPRSHFFPFDLFPM
CPFGCQCYSRVVHCSDLGLTSVPTNIPFDTRMLDLQNNKIKEIKENDFKGLTSLYGLILNNNKLTKIHPKAFLT
KKLRRLYLSHNQLSEIPLNLPKSLAELRIHENKVKKIQKDTFKGMNALHVLEMSANPLDNNGIEPGAFEGVTVFH
IRIAEAKLTSVPKGLPPTLLELHLDYNKISTVELEDFKRYKELQRLGLGNNKITDIENGSLANIPRVREIHLENN
KLKKIPSGLPPELKYLQIIFLHSNSIARVGVNDFCPTVPKMKKSLYSAISLFNNPVKYWEMQPATFRCVLSRMSVQ
LGNFGM

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FIGURE 5

GATCCCAGACCTCGGCTTGCACTAGTGTAGACTGAAGATAAAGTAAGTGCTGTTGGGCTAACAGGATCTCCTC
TTGCAGTCTGCAGCCCAGGACGCTGATTCCAGCAGCGCCTTACCGCGCAGCCCGAAGATTCACTATGGTGAAAA
CGCCTTCAATACCCCTACCGCCGTGCAAAAGGAGGAGGCGCGGCAAGACGTGGAGGCCCTCCTGAGCCGCACGGT
CAGAACTCAGATACTGACCGCAAGGAGCTCCGAGTTGCCACCCAGGAAAAAGAGGGCTCCTCTGGGAGATGTAT
GCTTACTCTCTTAGGCCTTTCATTTCATCTTGGCAGGACTTATTGTTGGTGGAGCCTGCATTTACAAGTACTTCAT
GCCCCAAGAGCACCATTTACCGTGGAGAGATGTGCTTTTTTGATTCTGAGGATCCTGCAAATTCCTTCGTGGAGG
AGAGCCTAACTTCCTGCCTGTGACTGAGGAGGCTGACATTCGTGAGGATGACAACATTGCAATCATTGATGTGCC
TGTCCTCAGTTTCTCTGATAGTGACCTGCAGCAATTATTCATGACTTTGAAAAGGGAATGACTGCTTACCTGGA
CTTGTTGCTGGGGAAGTCTATCTGATGCCCTCAATACTTCTATTGTTATGCCTCCAAAAATCTGGTAGAGCT
CTTGGCAAAGTGGCGAGTGGCAGATATCTGCCTCAAACCTTATGTGTTGCGAGAAGACCTAGTTGCTGTGGAGGA
AATTCGTGATGTTAGTAACCTTGGCATCTTTATTTACCAACTTGCAATAACAGAAAGTCCTTCCGCCTTCGTGC
CAGAGACCTCTTGCTGGGTTTCAACAAACGTGCCATTGATAAATGCTGGAAGATTAGACACTTCCCCAACGAATT
TATTGTTGAGACCAAGATCTGTCAAGAGTAAGAGGCAACAGATAGAGTGTCTTGGTAATAAGAAGTCAGAGATT
TACAATATGACTTTAACATTAAGGTTTATGGGATACCTCAAGATATTTACTCATGCATTACTCTATTGCTTATGC
CGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 6

MVKIAFNTPAVQKEEARQDVEALLSRTVTRQILTGKELRVATQKEGSSGRCLTLLGLSFILAGLIVGGACIY
KYFMPKSTIYRGEMCFDSEDPANSLRGGEPNFLPVTEEADIREDDNIAIIDVPVPSFSDSDPAIIHDFEKGMT
AYLDLLLGNCYLMPLNTSIVMPPKNLVELFGKLASGRYLPQTYVVREDLVAVEEIRDVSNLGIFIYQLCNNRKSF
RLRRDLLLLGFNKRAIDKCWKIRHFPNEFIVETKICQE

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FIGURE 7

CGAACTCTGAAAAGCGGGGCGAGCGGGCCTGCAGCTCCTGGAGTTCAGGGAGACCCGGAAATCTCACCCCTGCCCT
CTTCTTGTTGTTGTTTGTACAGCCTTGCCCTCTTGCTCGCCTTGAAAATCGAAAAGATGCTCGCAGGCTGCT
TTCTGCTGATCCTCGGACAGATCGTCTCCTCCCTGCCGAGGCCAGGGAGCGGTACGTGGGAGGTCCATCTCTA
GGGGCAGACACGCTCGGACCCACCCGAGACGGCCCTTCTGGAGAGTTCTGTGAGAACAAAGCGGGCAGACCTGG
TTTTCATCTTACAGCTCTCGCAGTGTCAACACCCATGACTATGCAAAGGTCAAGGAGTTCATCGTGGACATCT
TGCAATCTTGGACATTGGTCCTGATGTACCCGAGTGGGCGCTGCTCCAATATGGCAGCACTGTCAAGAATGAGT
TCTCCCTCAAGACCTTCAAGAGGAAGTCCGAGGTGGAGCGTGTGTCAAGAGGATGCGGCATCTGTCCACGGGCA
CCATGACCGGGCTGGCCATCCAGTATGCCCTGAACATCGCATTCTCAGAAGCAGAGGGGGCCCGCCCTGAGGG
AGAATGTGCCACGGGTCTAATGATCGTGACAGATGGGAGACCTCAGGACTCCGTGGCCGAGGTGGCTGCTAAGG
CAGGGGACACGGGCATCTAATCTTTGCCATTGGTGTGGGCCAGGTAGACTTCAACACCTTGAAGTCCATTGGGA
GTGAGCCCCATGAGGACCATGTCTTCTTGTTGGCCAATTTAGCCAGATTGAGACGCTGACCTCCGTGTTCCAGA
AGAAGTTGTGCACGGCCCCATGTGCAGCACCTGGAGCATAACTGTGCCCACTTCTGCATCAACATCCCTGGCT
CATACGCTGTGCAGGTGCAAAACAAGGCTACATTCTCAACTCGGATCAGACGACTTGCAAGATCCAGGATCTGTGTG
CCATGGAGGACCACAACCTGTGAGCAGCTCTGTGTGAATGTGCCGGGCTCCTTCGTCTGCCAGTGCTACAGTGGCT
ACGCCCTGGCTGAGGATGGGAAGAGGTGTGTGGCTGTGGACTACTGTGCCTCAGAAAACCACGGATGTGAACATG
AGTGTGTAAATGCTGATGGCTCCTACCTTTGCCAGTGCCATGAAGGATTTGCTCTTAACCCAGATGAAAAACGT
GCACAAAGATAGACTACTGTGCCTCATCTAATCACGGATGTGACGACGAGTGTGTAAACACAGATGATTCTTATT
CCTGCCACTGCCTGAAAGGCTTTACCTGAATCCAGATAAGAAAACCTGCAGAAGGATCAACTACTGTGCACTGA
ACAAACCGGGCTGTGAGCATGAGTGCCTCAACATGGAGGAGAGCTACTACTGCCGCTGCCACCGTGGCTACACTC
TGGACCCCAATGGCAAACCTGCAGCCGAGTGGACCACTGTGCACAGCAGGACCATGGCTGTGAGCAGCTGTGTG
TGAACACGGAGGATTCTTCTGTCTGCCAGTGTCTAGAAGGCTTCTCATCAACGAGGACCTCAAGACCTGCTCCC
GGGTGGATTACTGCTGTGAGTGACCATGGTTGTGAATACCTCTGTGTCAACATGGACAGATCCTTTGCCTGTG
AGTGTCTGAGGGACACGTGCTCCGACGCGATGGGAAGACGTGTGCAAAATGGACTCTTGTGCTCTGGGGGACC
ACGGTTGTGAACATTCGTGTGTAAGCAGTGAAGATTCGTTTGTGTGCCAGTGCTTTGAAGTTATATACTCCGTG
AAGATGGAACCACTGCAGAAGGAAAGATGTCTGCCAAGCTATAGACCATGGCTGTGAACACATTTGTGTGAACA
GTGATGACTCATACACGTGCGAGTGCTTGGAGGGATTCCGGCTCGCTGAGGATGGGAAACGCTGCCGAAGGAAGG
ATGTCTGCAAAATCAACCCACCATGGCTGCGAACACATTTGTGTTAATAATGGGAATTCCTACATCTGCAAAATGCT
CAGAGGGATTTGTTCTAGCTGAGGACGGAAGACGGTGCAAGAAATGCACTGAAGGCCCAATTGACCTGGTCTTTG
TGATCGATGGATCCAAGAGTCTTGGAGAAGAGAATTTGAGGTGCTGAAGCAGTTTGTCACTGGAATTATAGATT
CCTTGACAATTTCCCCCAAAGCCGCTCGAGTGGGGCTGCTCCAGTATTCCACACAGGTCCACACAGAGTTCACTC
TGAGAACTTCAACTCAGCCAAAGACATGAAAAAGCCGTGGCCACATGAAATACATGGGAAAGGGCTCTATGA
CTGGGCTGGCCCTGAAACACATGTTTGAGAGAAGTTTACCCAAAGGAGAAGGGGCCAGGCCTTTTCCACAAGGG
TGCCAGAGCAGCCATTGTGTTACCCGACGACGGGCTCAGGATGACGTCTCCGAGTGGGCCAGTAAAGCCAAGG
CCAATGGTATCATTATGTATGCTGTTGGGGTAGGAAAAGCCATTGAGGAGGAACCTACAAGAGATTGCCTCTGAGC
CCACAAACAAGCATCTCTTCTATGCCGAAGACTTCAGCACAAATGGATGAGATAAGTGAACCACTCAAGAAAGGCA
TCTGTGAAGCTCTAGAAGACTCCGATGGAAGACAGGACTCTCCAGCAGGGGAACTGCCAAAAACGGTCCAACAGC
CAACAGAATCTGAGCCAGTCACCATAAATATCCAAGACCTACTTTCTGTTCTAATTTTGAGTGCAACACAGAT
ATCTGTTTGAAGAAGACAATCTTTACGGTCTACACAAAAGCTTTCCATTCAACAAAACCTTCAGGAAGCCCTT
TGGAAGAAAAACACGATCAATGCAAAATGTGAAAACCTTATAATGTTCCAGAACCTTGCAAACGAAGAAAGTAAAGAA
AATTAACACAGCGCTTAGAAGAAATGACACAGAGAATGGAAGCCCTGGAAAATCGCCTGAGATACAGATGGAAGAT
TAGAAATCGCGACACATTTGTAGTCATTGTATCACGGATTACAATGAACGAGTGCAGAGCCCCAAAGCTCAGGC
TATTGTTAAATCAATAATGTTGTGAAGTAAACAATCAGTACTGAGAAACCTGGTTTGCCACAGAACAAAGACAA
GAAGTATACACTAATCTGTATAAATTTATCTAGGAAAAAATCCTTCAGAAATCTAAGATGAATTTACCAGGTGA
GAATGAATAAGCTATGCAAGGTATTTGTAAATATACTGTGGACACAACCTGCTTCTGCCTCATCTGCCTTAGTG
TGCAATCTCATTTGACTATACGATAAAGTTGCACAGTCTTACTTCTGTAGAACACTGGCCATAGGAAATGCTGT
TTTTTGTACTGGACTTTACCTTGATATATGTATATGGATGTATGCATAAAATCATAGGACATATGTACTTGTGG
AACAAGTTGGATTTTTTATACAATATTAATAATTCACCACTTCAGAG

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FIGURE 8

MEKMLAGCFLLILGQIVLLPAEARERSRGRSISRGRHARTHPTALLESSCENKRADLVFIIDSSRSVNTHDYAK
VKEFIVDILQFLDIGPDVTRVGLLQYGSTVKNEFS LKTFKRKSEVERAVKRMRLSTGMTGLAIQYALNIAFSE
AEGARPLRENVPRVIMIVTDGRPQDSVAEVAAKARDTGILIFAIGVGQVDFNTLKSIGSEPHEDHVFLVANFSQI
ETLTSVVFQKKLCTAHMCSTLEHNCAHFCINIPGSYVCRCKQGYILNSDQTTCRIQDLCAMEDHNCEQLCVNVPGS
FVCQCYSGYALAEDGKRCVAVDYCASENHGCEHECVNADGSYLCQCHEGFALNPDEKTCTKIDYCASSNHGCQHE
CVNTDDSYSCHCLKGFTLNPDKKTCCRINICALNKPGEHECVNMEESYYCRCHRGYTLDPNGKTC SRVDHCAQQ
DHGCEQLCLNTEDSFVCQCSEGF LINEDLKTC SRVDYCLSDHGCEYSCVNMDRSFACQCPEGHVLRSDGKTC AK
LDSCALGDHGCEHSCVSSSEDSFVCQCFEGYILREDGKTCRRKDVCQAIDHGCEHICVNSDDSYTCECLEGFRLAE
DGKRCRRKDVCSTHHGCEHICVNNGNSYICKSEGFVLAEDGRRCKKCTEGPIDLVFVIDGSKSLGEENFEVVK
QFVTGIIDSLTISPKAARVGLLQYSTQVHTEFTLRNFNSAKDMKKAVAHMKYMGKGSMTGLALKHMFERSFTQGE
GARPFSTRVPRAAIVFTDGRAQDDVSEWASKAKANGITMYAVGVGKAIEEELQEIASEPTNKHLYAEDFSTMDE
ISEKLKKGICEALEDSDGRQDSPAGELPKTVQQPTESEPTVINIQDLLSCSNFAVQHRYLFEEDNLLRSTQKLSH
STKPSGSPLEEKHDQCKCENLIMFQNLANEVVRKLTQRLEEMTQRMEALENRLRYR

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FIGURE 9

CGGACGCGTGGGGCGGCGAGAGCAGCTGCAGTTCGCATCTCAGGCAGTACCTAGAGGAGCTGCCGGTGCCTCCTC
AGAACATCTCCTGATCGCTACCCAGGACCAGGCACCAAGGACAGGGAGTCCCAGGCGCACACCCCCATTCTGGG
TCCCCAGGCCCAGACCCCCACTCTGCCACAGGTTGCATCTTGACCTGGTCCCTCCTGCAGAAGTGGCCCCCTGTGG
TCCTGCTCTGAGACTCGTCCCTGGGCGCCCTGCAGCCCCCTTTCTATGACTCCATCTGGATTGGCTGGCTGTGG
GGACGCGGTCCGAGGGGCGGCCTGGCTCTCAGCGTGGTGGCAGCCAGCTCTCTGGCCACCATGGCAAATGCTGAG
ATCTGAGGGGACAAGGCTCTACAGCCTCAGCCAGGGGCACTCAGCTGTTGCAGGGTGTGATGGAGAACAAGCTA
TGTACCTACACACCGTCTCAGCGACTGTGACACCAGCTCCATCTGTGAGGATTCCCTTTGATGGCAGGAGCCTGTCCA
AGCTGAACCTGTGTGAGGATGGTCCATGTCAAAAAGGCGGGCAAGCATCTGCTGTACCCAGCTGGGGTCCCTGT
CGGCCCTGAAGCATGTGTCTGGGGCTCTACCTGTGGTCTTCTGATTCTGTGGGCATCTTCATCTTAGCAG
GGCCACCGGGACCCAAAGGTGATCAGGGGATGAAGGAAAGGAAGGCAGGCCTGGCATCCCTGGATTGCCTGGAC
TTCGAGGTCTGCCCGGGGAGAGAGGTACCCAGGATTGCCCGGGCCAAAGGCGATGATGGGAAGCTGGGGGCCA
CAGGACCAATGGGCATGCGTGGGTCAAAGGTGACCGAGGCCCAAAGGAGAGAAAGGAGAGAAAGGAGACAGAG
CTGGGGATGCCAGTGGCGTGGAGGCCCGATGATGATCCGCTGGTGAATGGCTCAGGTCCGCACGAGGGCCGCG
TGGAAGTGTACCACGACCGCGCTGGGGCACCGTGTGTGACGACGGCTGGGACAAGAAGGACGGAGACGTGGTGT
GCCGATGCTCGGCTTCCGCGGTGTGGAGGAGGTGTACCCGACAGCTCGATTGGGCAAGGCACTGGGAGGATCT
GGATGGATGACGTTGCCTGCAAGGCGACAGAGGAAACCATCTTCCGCTGCAGCTTCTCCAAATGGGGGTGACAA
ACTGTGGACATGCCGAAGATGCCAGCGTGACATGCAACAGACACTGAAAGTGGGCAGAGCCCAAGTTCGGGGTCC
TGACAGAGCACCCCTTGCTGCATCCCTGGGGTGGGGCACAGCTCGGGGCCACCCTGACCATGCCTCGACCACACC
CCGTCCAGCATCTCAGTCTCACACCTGCATCCCAGGACCGTGGGGGCCGGTCTGTCATTTCCCTCTTGAACATG
TGCTCCGAAGTATAACTCTGGGACCTACTGCCCGTCTCTCTCTTCCACCAGGTCTCTGCATGAGGAGCCCTGATC
AACTGGATCACCACCTTTGGCCAGCCTCTGAACACCATGCACCAGGCCTCAATATCCAGTTCCTTTGGCCTTTT
AGTTACAGGTGAATGCTGAGAATGTGTCAGAGACAAGTGCAGCAGCAGCGATGGTTGGTAGTATAGATCATTTAC
TCTTCAGACAATCCCAAACCTCCATTAGTCCAAGAGTTTCTACATCTTCTCCCCAGCAAGAGGCAACGTCAAG
TGATGAATTTCCCCCTTTACTCTGCCTCTGCTCCCATTTGCTAGTTTGAGGAAGTGACATAGAGGAGAAGCCA
GCTGTAGGGGCAAGAGGGAAATGCAAGTCACCTGCAGGAATCCAGCTAGATTTGGAGAAGGGAATGAAACTAACA
TTGAATGACTACCATGGCAGCTAAATAGTATCTTGGGTGCCAAATTCATGTATCCACTTAGCTGCATTGGTCCA
GGGCATGTCAGTCTGGATACAGCCTTACCTTCAGGTAGCACTTAACTGGTCCATTACCTAGACTGCAAGTAAGA
AGACAAATGACTGAGACCGTGTGCCACCTGAACCTATTGTCTTTACTTGGCCTGAGCTAAAAGCTTGGGTGCA
GGACCTGTGTAAGTAGAAAGTTGCCTACTTCAGAACCTCCAGGGCGTGAGTGCAAGGTCAAACATGACTGGCTTC
CAGGCCGACCATCAATGTAGGAGGAGAGCTGATGTGGAGGGTGACATGGGGGCTGCCCATGTTAAACCTGAGTCC
AGTGCTCTGGCATTGGGCAGTCACGGTTAAAGCCAAGTCATGTGTGCTCAGCTGTTTGAGGATGATGATTTTGC
ATCTTCCAAGCCTCTTCAGGTGTGAATCTGTGGTCAGGAAAACACAAGTCCTAATGGAACCTTAGGGGGGAAGG
AAATGAAGATTCCCTATAACCTCTGGGGGTGGGGAGTAGGAATAAGGGGCTTGGGCTCCATAAATCTGCAATC
TGCACCTCCTCCTAGAGACAGGGAGATCGTGTCTGCTTTTACATGAGGAGCAGAACTGGGCCATACACGTGT
TCAAGAACTAGGGGAGCTACCTGGTAGCAAGTGAGTGCAGACCCACCTACCTTGGGGGAATCTCAAACATAG
GCCTCAGATACACGATCACCTGTATATCAGGTGAGCACTGGCCTGCTTGGGGAGAGACTGGGCCCTCCAGGT
GTAGGAACAGCAACACTCCTGGCTGACAACTAAGCCAATATGGCCCTAGGTCATTCTGCTTCCAATATGCTTGC
CACTCCTTAAATGCTCTAATGATGAGAACTCTCTTTCTGACCAATTGCTATGTTTACATAACACGCATGTACTC
ATGCATCCCTTGCCAGAGCCCATATATGTATGCATATATAACATAGCACTTTTACTACATAGCTCAGCACATT
GCAAGGTTTGCATTTAAGTT

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FIGURE 10

MENKAMYLHTVSDCDTSSICEDSFDGRSLSKLNLCEGDPCHKRRASICCTQLGSLSALKHAVLGLYLLVFLILVG
IFILAGPPGPKGDQGDGEGKEGRPGIPGLPGLRGLPGERGTPGLPGPKGDDGKLGATGPMGMRGFKGDRGPKGEKG
EKGDRA GDASGVEAPMMIRLVN GSGPHEGRVEVYHRRWGTVCDDGWDKKDGDVVCRLGFRGV EEVYRTARFGQ
GTGRIWMDDVACKGTEETIFRCSFSKWGVTNCGHAEDASVTCNRH

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FIGURE 11

AAGCAACCAAAGTCAAGCTTTGGGAGTTGTTTCGCTGTCCCTGCCCTGCTCTGCTAGGGAGAGAACGCCAGAGGG
AGGCGGCTGGCCCGGCGGAGGCTCTCAGAACCCTACCGGCGATGCTACTGCTGTGGGTGTGGTGGTGCAGC
CTTGGCGCTGGCGGTACTGGCCCCGGAGCAGGGGAGCAGAGGCGGAGAGCAGCCAAAGCGCCCAATGTGGTGTCT
GGTCGTGAGCGACTCCTTCGATGGAAGGTTAACATTTTCATCCAGGAAGTCAGGTAGTGAAACTTCCTTTTATCAA
CTTTATGAAGACAGTGGGACTTCCTTTCTGAATGCCTACACAACTCTCCAATTTGTTGCCATCAGCGGCAGC
AATGTGGAGTGGCCTCTTCACTCACTTAACAGAATCTTGAATAATTTAAGGGTCTAGATCCAAATTATACAAC
ATGGATGGATGTCATGGAGAGGCATGGCTACCGAACACAGAAATTTGGGAACTGGACTATACTTCAGGACATCA
CTCCATTAGTAATCGTGTGGAAGCGTGGACAAAGAGATGTTGCTTTTCTTACTCAGACAAGAAGGCAGGCCCATGGT
TAATCTTATCCGTAACAGGACTAAAGTCAGAGTGATGGAAGGGATTGGCAGAATACAGACAAAGCAGTAAACTG
GTTAAGAAAGGAAGCAATTAATTACACTGAACCATTTGTTATTTACTTGGGATTAAATTTACCACACCTTACCC
TTCACCATCTTCTGGAGAAAATTTTGGATCTTCAACATTTACACATCTCTTTATTGGCTTGAAAAAGTGTCTCA
TGATGCCATCAAAATCCCAAAGTGGTCACCTTTGTGAGAAATGCACCCTGTAGATTATTACTCTTCTTATACAAA
AACTGCACTGGAAGATTTACAAAAAAGAAATTAAGAATATTAGAGCATTATTATTATGCTATGTGTGCTGAGAC
AGATGCCATGCTTGGTGAATTTTGGCCCTTCATCAATTAGATCTTCTTCAGAAAATATTGTATATACTC
CTCAGACCATGGAGAGCTGGCCATGGAACATCGACAGTTTATAAAATGAGCATGTACGAGGCTAGTGCACATGT
TCCGCTTTTGATGATGGGACCAGGAATTAAAGCCGGCCTACAAGTATCAATGTGGTTTCTTGTGGATATTTA
CCCTACCATGCTTGATATTGCTGGAATTCCTCTGCCTCAGAACCTGAGTGGATACTCTTGTGCGGTATCATC
AGAAACATTTAAGAATGAACATAAAGTCAAAAACCTGCATCCACCCTGGATTCTGAGTGAATTCATGGATGTAA
TGTGAATGCCTCCACCTACATGCTTCGAACCTAACCACTGGAATATATAGCCTATTCGGATGGTGCATCAATATT
GCCTCAACTCTTTGATCTTTCCTCGATCCAGATGAATTAACAAATGTTGCTGTAAAATTTCCAGAAATTACTTA
TTCTTTGGATCAGAAGCTTCATTCCATTATAAACTACCCTAAAGTTCTGCTTCTGTCCACCAGTATAATAAAGA
GCAGTTTATCAAGTGGAAACAAAGTATAGGACAGAATTATTCAAACGTTATAGCAAATCTTAGGTGGCACCAAGA
CTGGCAGAAGGAACCAAGGAAGTATGAAATGCAATTGATCAGTGGCTTAAACCCATATGAATCCAAGAGCAGT
TTGAACAAAAAGTTTAAAAATAGTGTCTAGAGATACATATAAATATATTACAAGATCATAATTATGTATTTAA
ATGAACAGTTTAAATAATTACCAAGTTTGGCCGGGCACAGTGGCTCACACCTGTAATCCAGGACTTTGGGAG
GCTGAGGAAAGCAGATCACAAGGTCAAGAGATTGAGACCATCTGGCCAACATGGTGAACCCCTGTCTCTACTAA
AAATACAAAAATTAGCTGGGCGCGGTGGTGCACACCTATAGTCTCAGCTACTCAGAGGCTGAGGCAGGAGGATCG
CTTGAACCCGGGAGGCAGCAGTTGCAGTGAGCTGAGATTGCGCCACTGTACTCCAGCCTGGCAACAGAGTGAGAC
TGTGTGCGCAAAAAATAAAAAATAAATAAATAATACCAATTTTTCATTATTTTGTAAGAATGTAGTGTATTT
TAAGATAAAATGCCAATGATTATAAAATCACATATTTTCAAAAATGGTTATTATTTAGGCCCTTTGTACAATTTCT
AACAAATTTAGTGAAGTATCAAAAGGATTGAAGCAAATACTGTAACAGTTATGTTCTTTAAATAATAGAGAATA
TAAATATTGTAATAATATGTATCATAAAATAGTTGTATGTGAGCATTGTATGGTGAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 12

MLLLWVSVVAALALAVLAPGAGEQRRRAAKAPNVVLVVSDFDGRLLTFHPGSQVVKLPFINFMKTRGTSFLNAYT
NSPICCP SRAAMWSGLFTHLTESWNNFKGLDPNYTTWMDVMERHGYRTQKFGKLDYTSGHHSISNRVEAWTRDVA
FLLRQEGRPMVNLIRNRTKVRVMERDWQNTDKAVNWLKRAINYTEPFVIYLG LNLPHYPSPSSGENFGSSTFH
TSLYWLEKVSHDAIKIPKWSPLSEMHPVDYYSYTKNCTGRFTKKEIKNIRAFYYAMCAETDAMLGEIILALHQL
DLLQKTIVIIYSSDHGELAMEHRQFYKMSMYEASAHVPLLMGPGIKAGLQVSNVSLVDIYPTMLDIAGIPLPQN
LSGYSLLPLSSETFKNEHKVKNLHPPWILSEFHGCNVNASTYMLRTNHWKYIAYS DGASILPQLFDLSSDPDELT
NVAVKFEITYSLDQKLHSIINYPKVSASVHQYNKEQFIKWKQSIGQYNSNVIANLRWHQDWQKEPRKYENAIQ
WLKTHMNPRAV

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FIGURE 13

GTAAGAACCATCACAAAGACAAAATGGTTCGTGCCTTGGGGACCCAATCATTGTGACAAGATCCGAGACATTGAAG
AGGCAATTCCAAGGGAAATTGAAGCCAATGACATCGTGTCTTCTGTTACATTCCCCTCCCCACATGGAGATGA
GTCCTTGGTTCCAATTCATGCTGTTTATCCTGCAGCTGGACATTGCCTTCAAGCTAAACAACCAAAATCAGAGAAA
ATGCAGAAGTCTCCATGGACGTTTCCCTGGCTTACCGTGATGACGCATTGCTGAGTGGACTGAAATGGCCCATG
AAAGAGTACCACGGAAACTCAAATGCACCTTCACATCTCCCAAGACTCCAGAGCATGAGGGCCGTTACTATGAAT
GTGATGTCTCTTCCATGGAAATTGGGTCTGTGGCCCATAAAGTTTTACCTTTTAAACATCCGGCTGCCTGTGA
ATGAGAAGAAGAAAATCAATGTGGGAATTGGGGAGATAAAGGATATCCGGTTGGTGGGGATCCACCAAAATGGAG
GCTTCACCAAGGTGTGGTTTGGCATGAAGACCTTCCTACGCCCAGCATCTTCATCATTATGGTGTGGTATTGGA
GGAGGATCACCATGATGTCCCGACCCCACTGCTTCTGGAAAAAGTCATCTTGGCCCTGGGATTTCATGACCT
TTATCAATATCCCAGTGGAAATGGTTTTCATCGGGTTTGACTGGACCTGGATGCTGCTGTTTGGTGACATCCGAC
AGGGCATCTTCTATGCGATGCTTCTGTCTTCTGGATCATCTTCTGTGGCGAGCACATGATGGATCAGCAGAGC
GGAACCACATCGCAGGGTATTGGAAGCAAGTCGGACCCATTGCCGTTGGCTCCTTCTGCCTCTTCATATTTGACA
TGTGTGAGAGAGGGGTACAACCTACGAATCCCTTCTACAGTATCTGGACTACAGACATTGGAACAGAGCTGGCCA
TGGCCTTCTATCATCGTGGCTGGAATCTGCCTCTGCCTCTACTTCTGTTTCTATGCTTCATGGTATTTAGGTGT
TTCCGAACATCAGTGGGAAGCAGTCCAGCCTGCCAGCTATGAGCAAAGTCCGGCGGCTACACTATGAGGGGCTAA
AGGTAACGGAAGGCCATTGGAATGGGGCGGCTCACAGTCCAAGTGAACAGTGCCTTTTTCACAGGCATCTATG
GGATGTGGAATCTGTATGTCTTTGCTCTGATGTTCTTGTATGCACCATCCCATAAAACTATGGAGAAGACCAGT
CCAATGGCGATCTGGGTGTCCATAGTGGGGAAGAACTCCAGCTCACCACTATCACCATGTGGACGGACCCA
CTGAGATCTACAAGTTGACCCGCAAGGAGGCCAGGAGTAGGAGGCTGCAGCGCCCGGCTGGGACGGTCTCTCCA
TACCCAGCCCTCTAACTAGAGTGGGGAGCATGCCAGAGAGAGCTCAATGTACAAATGAATGCCTCATGGCTCT
TAGCTGTGGTTTCTTGGACCAGCGGCATGGACATTGTGAGTTTGCCTTCTGACGGTAGCTTTTGGAGGAAGATT
CCTGCAGCCACTAATGCATTGTGTATGATAACAAAACCTCTGGTATGACACATTTTCTGTGATCATTGTTAATTA
GTGACATAGTAACATCTGTAGCAGCTGGTTAGTAAACCTCATGTGGGGGTGGGGTGGGGGTGTATTCCTTGGGGG
ATGGTTTGGGCCGAATGGGGAGTGAATATTTGACATTTTCTCTGTTTAAATCTAGGATAGATTTTAAACATCC
TTTGGGTCCCAGTCCAAGGTAGGCTGGTGTATAGTCTTCTCACTCCTAATCCATGACCACTGTTTTTTTCTA
TTTATATCACCAGGTAGCTACTGAGTTAATATTTAAGTTGTCAATAGATAAGTGTCCCTGTTTTGTGGCATAAT
ATAACTGAATTTTCATGAGAAGATTTATCCACCAGGGGTATTTAGCTTTGAAACCAATCTGTGTATCTAATAC
TAACCAATCTGTTGGATGTGGATTTTAAAAAATGTTTGCTAAACTACCCAAGTAAGATTTACTGTATTAATGGC
CTTCGGGTCTGAAAAGCTTTTTTAAAAAATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 14

MEMSPWFQFMLFILQLDIAFKLNNQIRENAEVSMDVSLAYRDDAF AEWTEMAHERVPRKLKCTFTSPKTP EHEGR
YYECDVLPFMEIGSVAHKFYLLNIRLPVNEKKKINVGIGEIKDIRLVGIHQNGGFTKVWFAMKTFLTPSIFIIMV
WYWRRITMMSRPPVLLEKVIFALGISMTFINIPVEWFSIGFDWTWMLLF GDIRQGIFYAML LSFWIIFCGEHMMD
QHERNHIAGYWKQVGPIAVGSFCLFIFDMCERGVQLTNP FYSIWTTDIGTELAMAFIIVAGICLC LYFLFCFMV
FQVFRNISGKQSSLPAMSKVRR LHYEGLIFRFKFLMLITLACAAMTVIFFIVSQVTEGHWK WGGVTQVNSAFFT
GIYGMWNLYVFALMFLYAPSHKNYGEDQSN GDLGVHSGEELQLTTTITHVDGPTEIYKLTRKEAQE

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FIGURE 15

GGTAACTGCAGTAAGTCCCGCTTGGCCCTGGAGTCCACGCGGATTTTCGAAGCTGGGGCTGGCAAGAGGCCGCTG
GACACCACGCTCCAGTCGTAGCCCACTTCTTAGCTGAACAGCGCGAGGCGGCGGAGCGAGCCGGGTCCCACCA
TGGCCGCGAATTATTCCAGTACCACTACCCGAGAGAACATGTCAAAGTTAAAACCAGCTCCCAGCCAGGCTTCC
TGGAACGGCTGAGCGAGACCTCGGGTGGGATGTTTTGTGGGGCTCATGGCCTTCTGTCTCTCTTCTACCTAATTT
TCACCAATGAGGGCCGCGCATTGAAGACGGCAACCTCATTGGCTGAGGGGCTCTCGCTTGTGGTGTCTCCCGACA
GCATCCACAGTGTGGCTCCGGAGAATGAAGGAAGGCTGGTGCACATCATTGGCGCCTTACGGACATCCAAGCTTT
TGTCTGATCCAACTATGGGGTCCATCTTCCGGCTGTGAACTGCGGAGGCACGTGGAGATGTACCAATGGGTAG
AAACTGAGGAGTCCAGGGAGTACACCGAGGATGGGCAGGTGAAGAAGGAGACGAGGTATTCTTACAACACTGAAT
GGAGGTGAGAAATCATCAACAGCAAAAACCTTCGACCGAGAGATTGGCCACAAAAACCCAGTGCCATGGCAGTGG
AGTCATTCATGGCAACAGCCCCCTTTGTCCAAATTGGCAGGTTTTTCTCTCGTCAGGCCTCATCGACAAAGTCG
ACAACTTCAAGTCCCTGAGCCTATCCAAGCTGGAGGACCTCATGTGGACATCATTGCCGTGGAGACTTTTTCT
ACCACAGCGAAAATCCCAAGTATCCAGAGGTGGGAGACTTGGCTGTCTCTTTTCTATGTGGAGTGAAGCGG
ATGACCTTGACCTGGGCCCAGCTCAGTGGTCACTGTGATTGCCCGGACGCGGGTGACCAGCTAGTCCCATTCT
CCACCAAGTCTGGGGATACCTTACTGCTCCTGCACACGCGGACTTCTCAGCAGAGGAGGTGTTTCATAGAGAAC
TAAGGAGCAACTCCATGAAGACCTGGGGCCTGCGGGCAGCTGGCTGGATGGCCATGTTTCATGGGCCTCAACCTTA
TGACACGGATCCTCTACACCTTGGTGGACTGTTTTCTGTTTTCCGAGACCTGGTCAACATTGGCCTGAAAGCCT
TTGGCTTCTGTGTGGCCACCTCGCTGACCTGCTGACCGTGCGGGCTGGCTGGCTCTTCTACCGACCCCTGTGGG
CCCTCTCATTCGCGGCTGGCCCTTGTGCCCATCCTTGTGCTCGGACACGGGTGCCAGCCAAAAAGTTGGAGT
GAAAAGACCCTGGCACCCGCCGACACCTGCGTGAGCCCTAGGATCCAGGTCTCTCTCACCTCTGACCCAGCTC
CATGCCAGAGCAGGAGCCCCGGTCAATTTGGACTCTGCACTCCCTCTCTCTTTCAGGGGCCAGACTTGGCAGCA
TGTGCACCAAGTTGGTGTTCACCACTCATGTCTTCCCCACATCTCTTCTTCCAGTAAGCAGCTTTGGTGGGCA
GCAGCAGCTCATGAATGGCAAGCTGACAGCTTCTCTGCTGTTTTCTTCTCTTGGACTGAGTGGGTACGGCC
AGCCACTCAGCCCATTTGGCAGCTGACAACGACAGACGCTCTACGGAGGCCTGTGATAAAGGGCTCAGCCTTGC
CGTGTGCTGCTTCTCATCTGACACACAAGTGCCATGCTTTGCCACCACCACCAAGCACATCTGTGATCTGAAG
GGCGGCGGTTAGTCATTACTGCTGAGTCTGGGTACCAGAGACACACTGGGCATGGACCCCTCAAAGCAGGCA
CACCCAAAACACAAGTCTGTGGCTAGAACCTGATGTGGTGTAAAAAGAGAAGAAACACTGAAGATGTCTGAGG
AGAAAAGCTGGACATATACTGGGCTTACACCTTATCTTATGGCTTGGCAGAACTTTGTAGTGTGTGGGATCTCT
GAAGGCCCTATTTAAGTTTTCTTCTGTTACTTTGCTGCTTCATGTGTACTTTCTACCCCAAGAGGAAGTTTTCT
GAAATAAGATTTAAAAACAAAACAAAAAAACACTTAATATTTAGACTGTTACAGGAAACACCCTTTAGTCTGT
CAGTTGAATTCAGAGCACTGAAAGGTGTTAAATGGGGTATGTGGTTTGATTGATAAAAAGTTACCTCTCAGTAT
TTTGTGTCACTGAGAAGCTTTACAATGGATGCTTTTGAAACAAGTATCAGCAAAAGGATTTGTTTTCACTCTGGG
AGGAGAGGGTGGAGAAAGCACTTGCTTTTCATCCTCTGGCATCGGAACTCCCTATGCACTTGAAGATGGTTAA
AAGATTAAGAAACGATTAAGAGAAAAGGTGGAAGCTTTATACTAAATGGGCTCCTTCATGGTGACGCCCCGTC
AACCACAATCAAGAACTGAGGCTGAGGCTGGTTGTACAATGCCACGCTGCCCTGGCTGCTTTACCTGGGAGT
GCTTTTCGATGTGGGCACCTGGGCTTCTTAGGGCTGCTTCTGAGTGGTTCTTACAGTGTGTGTGCCATAGCTTTA
GTCTTCTTAAATAAGATCCACCCACACCTAAGTCACAGAATTTCTAAGTTCCCAACTACTCTCACACCCTTTTA
AAGATAAAGTATGTTGTAACCAGGATGCTTAAATGATTCTTTGTGTACCTTTTCTGTATATTACAGAAACCGTT
TTGTGCCTGCTGGGAGTAATTCCTTTAGCAATTAAGTATTTGGTAGCTGAATAAGGGGTGAGAACTTCTGAAACC
AGAGATCTGTAATCATCTCTATTGGCCTGGGGTGCCTGTGCTATAAATGAGTTTCTTACATGAAAAACACAGCC
AGCCCAAGATGACTTATCTGGGTTTAGGATTCAATAGTATTCACTAAGTCTTATTACATGAGCAATTTTCATCA
ATCTCCAAACTCTTAAAGGATGCTTTTCGAAAAACAGCTGTATACCTAGATGATGACTAAATGCAAAATCCTTGG
GCTTTGGTTTTTTTCTAGTAAGGATTTTAAATACTGCCGACTTCAAAGTGTTCTTAAACGAAAGATAATGTT
AAGAAAAATTTGAAAGCTTTGAAAAACCAATTTGTAATATCATGTATTTTTTATTAAAGTTTGTAAATAAT
TTCTAAATTATAAAAAAAAAAAAAAAAAA

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FIGURE 16

MAANYSTSTREHVVKVTSSQPGFLERLSETSGGMFVGLMAFLLSFYLIFTNEGRALKTATSLAEGLSIVVSPD
SIHSVAPENEGRLVHIIGALRTSKLLSDPNYGVHLPAVKLRRHVEMYQWVETEEESREYTEDGQVKKETRYSYNTE
WRSEIINSKNFDREIGHKNPSAMAVESFMATAFFVQIGRFFLSGLIDKVDNFKSLSLSKLEDPHVDIIRRGDFF
YHSENPKEYEVDLRVSFSYAGLSGDDPDLGPAHVVTVIARQRGDQLVFFSTKSGDTLLLLHHGDFSAAEEVFHRE
LRSNSMKTWGLRAAGWMAMFMGLNLMTRILYTLVDWFPVFRDLVNIGLKAFACVATSLTLLTVAAGWLFYRPLW
ALLIAGLALVPIILVARTRVPAKKE

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FIGURE 17

GTCTAAACGGGAACAGCCCTGGCTGAGGGAGCTGCAGCGCAGCAGAGTATCTGACGGCGCCAGGTTGCGTAGGTG
CGGCACGAGGAGTTTTCCCGGCAGCGAGGAGGTCC TGAGCAGCATGCGCCGGAGGAGCGCCTTCCCTGCCGCCG
GCTCTGGCTCTGGAGCATCCTCCTGTGCCTGCTGGCACTGCGGGCGGAGGCCGGGCCGCGCAGGAGGAGAGCCT
GTACCTATGGATCGATGCTCACCAGGCAAGAGTACTCATAGGATTTGAAGAAGATATCCTGATTGTTTCAGAGGG
GAAAAATGGCACCTTTTACACATGATTTTCAGAAAAGCGCAACAGAGAATGCCAGCTATTCTGTCAATATCCATT
CATGAATTTTACCTGGCAAGCTGCAGGGCAGGCAGAACTTCTATGAATTCCTGTCTTGGCTCCCTGGATAA
AGGCATCATGGCAGATCCAACCGTCAATGTCCCTCTGCTGGGAACAGTGCCTCACAAGGCATCAGTTGTTCAAGT
TGGTTTCCCATGTCTTGGAAAACAGGATGGGGTGGCAGCAATTTGAAGTGGATGTGATTGTTATGAATTCGAAGG
CAACACCATTCTCCAAACACCTCAAAATGCTATCTTCTTTAAAACATGTCTACAAGCTGAGTGCCCGAGCGGGTG
CCGAAATGGAGGCTTTTGAATGAAAGACGCATCTGCGAGTGTCTGATGGGTCCACGGACCTCACTGTGAGAA
AGCCCTTTGTACCCACGATGTATGAATGGTGGACTTTGTGTGACTCCTGGTTTCTGCATCTGCCACCTGGATT
CTATGGAGTGAAGTGTGACAAAGCAAAGTGTCTCAACACCTGCTTTAATGGAGGGACCTGTTTCTACCTGGAAA
ATGTATTTGCCCTCCAGGACTAGAGGGAGAGCAGTGTGAATCAGCAAATGCCCAACACCTGTGCAATGGAGG
TAAATGCATTGGTAAAAGCAAATGTAAGTGTTCCAAAGGTTACCAGGGAGACCTCTGTTCAAAGCCTGTCTGCGA
GCCTGGCTGTGGTGACATGGAACCTGCCATGAACCCAAACAAATGCCAATGTCAAGAAGGTTGGCATGGAAGACA
CTGCAATAAAAGGTACGAAGCCAGCCTCATACATGCCCTGAGGCCAGCAGGCCCGCCAGCTCAGGCAGCACAGCC
TTCACITAAAAGGCCGAGGAGCGCGGGATCCACCTGAATCCAATTACATCTGGTGAAGTCCGACATCTGAAAC
GTTTTAAGTTACACCAAGTTATAGCCTTTGTTAACCTTTTCATGTGTGAATGTCAAATAATGTTTCACTACT
TAAGAATACTGGCCTGAATTTTATTAGCTTCATTATAAATCACTGAGCTGATATTTACTCTTCCTTTTAAAGTTT
CTAAGTACGTCTGTAGCATGATGGTATAGATTTCTTGTTCAGTGTCTTGGGACAGATTTTATATTATGTCAAT
TGATCAGGTTAAAATTTTCAGTGTGTAGTTGGCAGATATTTTCAAATTACAATGCATTTATGGTGTCTGGGGG
AGGGGAACATCAGAAAGGTTAAATTTGGGCAAAATGCGTAAGTCACAAGAATTTGGATGGTGCAGTTAATGTTGA
AGTTACAGCATTTCAGATTTTATTGTCAGATATTTAGATGTTTGTACATTTTTAAAAATTGCTCTTAATTTTTA
AACTCTCAATACAATATATTTTGACCTTACCATTATTCAGAGATTCAAGTATTAATAAAAAAAAAAAAAATTACACTG
TGGTAGTGGCATTAAACAATATAATATATTCTAAACACAATGAAATAGGGAATATAATGTATGAAGTCTTTTGCA
TTGGCTTGAAGCAATATAATATATTGTAAACAAAAACAGCTCTTACCTAATAAACATTTTATACTGTTTGTATG
TATAAATAAAGGTGCTGCTTTAGTTTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 18

MARRSAFPAAALWLSILLCLLALRAEAGPPQEESLYLWIDAHQARVLIGFEEDILIVSEGKMAPFTHDFRKAQQ
RMPAIPVNIHSMNFTWQAAGQAEYFYEFSLRSLDKGIMADPTVNVPLLGTVPHKASVVQVGFPCLGKQDGVAAF
EVDVIVMNSEGNTILQTPQNAIFFKTCLQAECPPGGCRNGGFCNERRICECPDGFHGPHEKALCTPRCMNGGLCV
TPGFCICPPGFYGVNCDKANCSTTCFNGGTCFYPGKCICPPGLEGEQCEISKCPQPCRNGGKCIGKSKCKCSKGY
QGDLCSPVCEPGCGAHGTCHEPNKCQCQEGWHGRHCNKRYEASLIHALRPAGAQLRQHTPSLKKAERRDPPES
NYIW

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FIGURE 19

CTGACTGATATTTGAAGAAGTGTTTTTCATCTATCCAAGAAAAATATGATGCTCCATCCCAAGCCTCACTCTTAT
TCTTAAATGTATGTATTTTTATTTGTGGAGAAGCTGTACAAGGTAAGTGTGTACATCATTCTACGGACTCTTCAG
TAGTTAACATTGTAGAAGATGGATCTAATGCAAAAAGATGAAAGTAAAAGTAATGATACTGTTTGTAAAGGAAGACT
GTGAGGAATCATGTGATGTTAAAACTAAAATTACACGAGAAGAAAAACATTTTCATGTGTAGAAAATTTGCAAAAT
CTATTGTTTCCTACACAAGAAGTACCAAAAACTACTAAGGAATATGATGGATGAGCAACAAGCTTCCTTGGATT
ATTTATCTAATCAGGTTAACGAGCTCATGAATAGAGTTCTCCTTTTGGACTACAGAAGTTTTTAGAAAACAGCTGG
ATCCTTTTCTCAGACAGCTGTTCAAGTACATGGTTTAGATTGCACTGATATTAAGGATACCATTGGCTCTGTCA
CCAAAACACCGAGTGGTTTATACATAATTCACCCAGAAGGATCTAGCTACCCATTTGAGGTAATGTGTGACATGG
ATTACAGAGGAGGTGGATGGACTGTGATACAGAAAAGAATTGATGGGATAATTGATTCCAGAGGTTGTGGTGTG
ATTATCTGGATGGATTTGGAGATCTTCTAGGAGAATTTTGGCTAGGACTGAAAAAGATTTTTATATAGTAAATC
AGAAAAATACCAGTTTTATGCTGTATGTGGCTTTGGAATCTGAAGATGACACTCTTGCTTATGCATCATATGATA
ATTTTGGCTAGAGGATGAAACGAGATTTTTTAAAATGCACCTTAGGACGGTATTCAGGAAATGCTGGTGATGCAT
TCCGGGGTCTCAAAAAGAAGATAATCAAAATGCAATGCCTTTTAGCACATCAGATGTTGATAATGATGGGTGTC
GCCCTGCATGCCTGGTCAATGGTCAGTCTGTGAAGAGCTGCAGTCACCTCCATAACAAGACCGGCTGGTGGTTTA
ACGAGTGTGGTCTAGCAAAATCTAAATGGCATTTCATCACTTCTCTGGAAAATTGCTTGCAACTGGAATTCATGGG
GCACGTGGACCAAAAACAACCTCACCTGTCAAGATTAAATCTGTTTCAATGAAAATTAGAAGATGTACAATCCAT
ATTTTAAGTAACTCTCATTTAACATTGTAATGCAAGTTCTACAATGATAATATATTAAAGATTTTTTAAAGTTTAT
CTTTTCACTTAGTGTTCAAACATATTAGGCAAAATTTAACTGTAGATGGCATTTAGATGTTATGAGTTTAATTA
GAAAACCTTCAATTTTGTAGTATTCTATAAAAGAAAACATGGCTTATTGTATGTTTTTACTTCTGACTATATTAAC
AATATACAATGAAATTTGTTTCAAGTGAACCTACAACCTTGCTTCCTAAAATTTATAGTGATTTTAAAGGATTTTG
CCTTTCTTTGAAGCATTTTTAAACCATAATATGTTGTAAAGGAAAATTGAAGGGAATATTTTACTTATTTTATA
CTTTATATGATTATATAATCTACAGATAATTTCTACTGAAGACAGTTACAATAAATAACTTTATGCAGATTAATA
TATAAGCTACACATGATGTAAAAACCTTACTATTTCTAGGTGATGCCATACCATTTTAAAAGTAGTAAGAGTTTG
CTGCCAAATAGTTTTCTTGTTCATATCTAATCATGGTTAACTATTTTGTATTGTTGTAATAAATATATG
TACTTTTATATCCTGAAAAA

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FIGURE 20

MMSPSQASLLFLNVCIFICGEAVQGNCVHHSTDSVVNIVEDGSSNAKDESKSNDTVCKEDCEESCDVTKITREE
KHFMCRNLQNSIVSYTRSTKKLLRNMMDEQQASLDYLSNQVNELMNRVLLLTTEVFRKQLDPFPHRPVQSHGLDC
TDIKDTIGSVTKTPSGLYIIHPEGSSYPFEVMCDMDYRGGGWTVIQKRIDGIIDFQRLWCDYLDGFGDLLGEFWL
GLKKIFYIVNQNTSFMLYVALESEDDTLAYASYDNFWLEDETRFFKMHLGRYSGNAGDAFRGLKKEDNQAMPF
STSDVDNDGCRPACLVNGQSVKSCSHLHNKTGWWFNECGLANLNGIHHFSGKLLATGIQWGTWTKNNSPVKIKSV
SMKIRRMYPYFK

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FIGURE 21A

GGCTTCTACAGTCCACAACACCCACCAGCCCCAGGCCAGCAGAATGAGCCCAGTGAGTGCCGGGGCTCCAGTT
TGGCTGTTGCTATGACAACGTGGCCACTGCAGCCGGTCTCTTGGGGAAGGCTGTGTGGGCCAGCCAGCCATGC
CTACCCCGTGCGGTGCTGCTGCCAGTGCCCATGGCTCTTGTGCAGACTGGGCTGCCCGCTGGTACTTCGTTGC
CTCTGTGGGCCAATGTAACCGCTTCTGGTATGGCGGCTGCCATGGCAATGCCAATAACTTTGCCCTCGGAGCAAGA
GTGCATGAGCAGCTGCCAGGGATCTCTCCATGGGCCCCGTCCTCCAGCCTGGGGCTTCTGGAAGGAGCACCCA
CACGGATGGTGGCGGCAGCAGTCTGCAGGCGAGCAGGAACCCAGCCAGCACAGGACAGGGGCCGCGGTGCAGAG
AAAGCCCTGGCCTTCTGGTGGTCTCTGGCGGCAAGACCAACAGCCTGGGCCAGGGGAGGCCCCCACACCCAGGC
CTTTGGAGAATGGCCATGGGGGCAGGAGCTTGGGTCCAGGGCCCCCTGGACTGGGTGGAGATGCCGGATCACCAGC
GCCACCTTCCACAGCTCCTCCTACAGATCTCACTTCCACCTCTCCAGGATTAGCTTGGCAGGTGTGGAGCCCT
CGTTGGTGCAGGCAGCCCTGGGGCAGTTGGTGGCGCTCTCTGCTCAGACGACACTGCCCCGGAATCCCAGGCTG
CCTGGCAGAAAGATGGCCAGCCCATCTCCTCTGACAGGCACAGGCTGCAGTTGACGGATCCCCTGATCATCCACC
CCCTGCAGGCAGAGCAGCGGACCTACAGCTGTGGCAGCACCCGGCCAGGCCGCGACTCCCAGAAGATCCAAC
TCCGCATTATAGGGGGTGACATGGCCGTGCTGTCTGAGGCTGAGCTGAGCCGCTTCCCTCAGCCAGGGAGCCAG
CTCAGGACTTTGGCCAAGCGGGGCTGTGGGCCCCCTGGGGGCCATCCCTCTTACACCCACAGCCTGCAAAACA
GGCTGCGTTTGGACCAGAACCAGCCCCGGGTGGTGGATGCCAGTCCAGGCCAGCGATCCGGATGACCTGCCGTG
CCGAAGGCTTCCCGCCCCAGCCATCGAGTGGCAGAGAGATGGGCAGCCTGTCTCTTCTCCAGACACCAGCTGC
AGCCTGATGGCTCCCTGGTCATTAGCCGAGTGGCTGTAGAAGATGGCGGCTTCTACACCTGTGTCGCTTTCAATG
GGCAGGACCCAGACCGATGGGTCCAGCTCAGATTCTGGGGGAGCTGACAATCTCAGGACTGCCCCCTACTG
TGACAGTGCCAGAGGGTGATACGGCCAGGCTATTGTGTGGTAGCAGGAGAAAGTGTGAACATCAGGTGGTCCA
GGAACGGGCTACCTGTGCAGGCTGATGGCCACCGTGTCCACCAGTCCCAGATGGCAGCTGCTCATTTACAAC
TGCGGGCCAGGGATGAGGGCTCCTACATGTGCAGTGCCTACCAGGGGAGCCAGGCAGTCAGCCGACGACCCGAGG
TGAAGTGGTCTCACCAGCACCCAGCCAGCCAGGGACCTGGCAGGGACTGCGTCGACCAGCCAGAGCTGG
CCAATGTGATTTGATCCTGCAGGCCAGCTTTGTGGCAATGAGTATTACTCCAGCTTCTGCTGTGCCAGCTGTT
CACGTTTCCAGCCTCAGCTCAGCCCATCTGGCAGTGGGATGAAGGCTAGTTCCAGCCCCAGTCCAAAATAGTT
CATAGGGCTAGGGAGAAAGGAAGATGGACTCTTGGCTTCTCTCTGCTGGCAAAGGGAGTTATCTTCTGGAA
TACATTAGCTCTTTCAAAAACCCACCCAGTGTGTTAGCCTCAACGGCAGCCAGTTACCAGCTTCTCTCTGTAGCCT
TCAGCAGTGTGTCATCTCTGACATAACCACAGGCTGCTGTTTTCAAGAAGAGCAATCTGTTTGGATAAGAAAA
CCTTTACTTTACAGCTTCCCTTTATAATTTGTTACACAGGAATAGTTAAATGCATTTGTTTGTGTTTTTGTAG
ACGGAGTTTCACTCTTGTGTCAGGCTGGAGGGCAATGGCGGATCTCAGCTCACTGCAACCTCCGTCTCTCTGG
GTTCTTGATTCTCCTGTGTACGCTTCTGAGTAGCTGGGATTACAGATGCCATACCATGCTGGGTAATTTT
GTATTTTAGTTGAGATGGGGTTTCGCCATGTTGGCCAGGCTGGTCTCGAACTTCTGACCTCAGATGATCTGCC
GCCTCAGCCTCCCAAAGTGTGGGATTACAGGCATGAGCCACCAGCCAGCCATCAATGCATTTTTTTTATTTT
TTTTTTGAGACAGAGTTTCGCACTTCTTGGCCAGGCTGGAGTACAATGGTGGGATCTTGGCTCACTGCAACCTCC
ACCTCCTGGGTTCAAGCGCTTCTCCAGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGTATGTGCCACCATGCCT
GGCTAATTTTGTATTTTGGTGGAGACGGGGTTTCCATGTTGGTTCAGACTGGTCTTGAACCTCCGACCTCAGG
TAATCCGCCCCCTCCGCTCCCAAAATGCTGGGATTAGAGGTGTGAGCCACTGTGCCAGCCCATCAATGTGTT
TTAAAGCTAGCTGTGAGGGTTCCACTTAATTTAAAGCTGGGCAGGGAGATGTGTAATGATTTCAAAGTTAACACC
TGTTTGTCTTCTAAAGGGCATGCCAAGTCTGCTGTATCAGGGAAGTATTCTGTGCTAAAATCAGCGATGGTTCA
TTGCTCTAGTCTCTCTCACCTTCTAGGCAGTGATCAGTCAGCTCTAAATCTGGTGCAGAGGGTTAACAGCATA
ACCTTGTGTTGGCAAAATGGAATAGATGTTAAGACCTCAAATAGGGATTGGGATGAAACAGCTGCAGTTAGCACT
GTTATCTGAGCATGAAAGAACTGGAAACGCTCCTTACGTCGAGATGTTGGACCTTGAAGCCCTCCTGAGGCCAAC
ATGCAAACTGGCTGTGACGGTTCATCTGACACCTGTGTAAAGCTGACCAGCCTGCTCTGTACAGTGACAATGAG
GAGCCCCCTCTTCTTAAAGTAGGAATCTGTGAAGCAAAATGTTTGGTGGCAAAGACAAATCAGACTGTCTAGTCA
TTAAACAGCATTAGCAGGATGAGGATAGCAATGGGGAAGGGTGTGGGCAATGCAGTAACAGGGAAATGGCTT
CAGAAATGGTTGAGTTGGAAGACAACATTCTCTCTCAGGACTTCTAATTCCTTGATGCTAAAAGAAGAGG
CATGGATTCTATGAGCTTCAAGTCCCTTTCCACTTTAACCTTCTACAAATCTTTCAGAGGACTGCCTAGTAGCA
AAGGTTATCTCTGGACACAGGAAAGACGGGCATTACAGGACCAAGCTCTGAAAGGTGACTTTTATTACCAACA
CACTGGCTGGAAAAGGGACAAACCACATCAGGGGTGAGTGATACTTCTCAGTCTTCTCTACTCATTAACAAAGG

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FIGURE 21B

AAATGTGGGCTGGGGCAGAGGTCTTTTTTCATTTAATACTGGAAAAATATTGAAGAGCATCCAIGTTCACTTATG
GCTGGTTTGTCTATAGAAATTGGAAAATAAAGGCCACTTTTTTG

FIGURE 22

MGPVVPSLGLLEGAPTRMVAAAVLQASRNPASTGQGPRCRES PGLLVVSGGKTNSLGQGRPPTPRPLENGHGGRS
LGPGPLDWVEMPDHQHRPSTAPPTDLTSHLSRISLAGVEPSLVQAALGQLVRLSCSDDTAPESQAAWQKDGQPI S
SDRHRLQFDGSLIIHPLQAEDAGTYS CGSTRPGRDSQKIQLRIIGGDM AVLSEAELSRFPQPRDPAQDFGQAGAA
GPLGAIPSSHPQPANRLRLDQNQPRVVDASPGQRI RMT CRAEGFPPPAIEWQRDQGPVSSPRHQLQPDGSLVISR
VAVEDGGFYTCVAFNGQDRDQRWVQLRVLGELTISGLPPTVTVP EGD TARLLCVVAGESVNIRWSRNLFPVQADG
HRVHQSPDGTLLIYNLRARDEGSYMC SAYQGSQAVSRSTE VKVVS PAPT AQPRDPGRDCVDQPELANCDLILQAQ
LCGNEYYSFFCCASC SRFPQPHAQPIWQ

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FIGURE 23

TCGAGGTCGACATTTATACCGTCTGAGGGTAGCAGCTCGAAAGTAGAAGAAAGTGTGCCAGGGACGGCAGTATC
TCTTTGTGTGACCTGGCGGCTTATGGGACGTTGGCTTCAGACCTTTGTGATACACCATGCTGCGTGGGACGATG
ACGGCGTGGAGAGGAATGAGGCCAGAGGTACACTGGCTTGCCTCCTCCTAGCCACAGCAGGCTGCTTTGCTGAC
TTGAACGAGGTCCCTCAGGTACACCGTCCAGCCTGCGTCCACCGTCCAGAAGCCCGGAGGCACCTGTGATCTTGGGC
TGCGTGGTGGAACTCCAAGGATGAATGTAACCTGGCGCTGAATGGAAAGGAGCTGAATGGCTCGGATGATGCT
CTGGGTGTCTCATCCCCACGGGACCTCGTCATCACTGCCCTTAACAACCACTGTGGGACGGTACCAGTGT
GTGGCCCGGATGCCTGCGGGGGCTGTGGCCAGCGTGCCAGCCACTGTGACACTAGCCAACTCTCCAGGACTTCAAG
TTAGATGTGACGACGATGATTGAAGTGGATGAGGGAACACAGCAGTCATTGCCCTGCCACCTGCCTGAGAGCCAC
CCCAAAGCCAGGTCCGGTACAGCGTCAAACAAGAGTGGCTGGAGGCCTCCAGAGGTAACCTACCTGATCATGCCC
TCAGGGAACCTCCAGATTGTGAATGCCAGCAGGAGGACGAGGGCATGTACAAGTGTGACGCTACAACCCAGTG
ACCCAGGAAGTGAACCTCCGGCTCCAGCGACAGGCTACGTGTGCGCGCTCCACCGCTGAGGCTGCCCGCATC
ATCTACCCCCCAGAGGCCAAACCATCATCGTCACCAAAGGCCAGAGTCTCATTCTGGAGTGTGTGGCCAGTGGA
ATCCACCCCCCAGGGTACCTGGGCCAAGGATGGGTCCAGTGTACCGGCTACAACAAGACGCGCTTCTGTCTG
AGCAACCTCTCATCGACACCACAGCGAGGAGGACTACGGCACCTACCGTGCATGGCCGACAATGGGGTTGGG
CAGCCCGGGCAGCGGTCTCCTTACAATGTCCAGGTGTTTGAACCCCTGAGGTACCATGGAGCTATCCAG
CTGGTCTATCCCTGGGGCCAGAGTGCCAAGCTTACCTGTGAGGTGCGTGGGAACCCCGCCCTCCGTGTCTGG
CTGAGGAATGCTGTGCCCTCATCTCCAGCCAGCGCTCCGGCTCTCCCGCAGGGCCCTGCGCGTGTCTAGCATG
GGGCTGAGGACGAAGCGCTTACCAGTGCTAGGCCGAGAACGAGGTTGGGAGCGCCCATGCCGTAGTCCAGCTG
CGGACCTCCAGGCCAAGCATAACCCCAAGGCTATGGCAGGATGCTGAGCTGGCTACTGGCACACCTCCTGTATCA
CCCTCCAACTCGGCAACCTGAGCAGATGCTGAGGGGCAACCGGCGCTCCCCAGACCCCAACGTCAGTGGGG
CCTGCTTCCCGCAGTGTCCAGGAGAGAAGGGGAGGGGGCTCCCGCCGAGGCTCCCATCATCCTCAGCTCGCCC
CGCACCTCCAAGACAGACTCATATGAAGTGTGTGGCGGCTCGGCATGAGGGCAGTGGCCGGGCGCAATCTC
TACTATGTGTGAACACCGCAAGGTCAAAATTCCTGTGACGATTGGACCATCTCTGGCATTCCAGCCAACAG
CACCCTGACCTCACCAGACTTGACCCCGGGAGCTGTATGAAGTGGAGATGGCAGCTTACAAGTGTGCGGGA
GAGGGCCAGACAGCCATGGTACCTTCCGAAGTGGACGGCGGCCAAACCCGAGATCATGGCCAGCAAAGAGCAG
CAGATCCAGAGAGACGACCTGGAGCCAGTCCCCAGAGCAGCAGCCAGCCAGACCGCCGCTCTCCCCCCA
GAAGCTCCCGACAGGCCACCATCTCCACGGCTCCGAGACCTCAGTGTACGTGACCTGGATTCCCCGTGGGAAT
GGTGGGTTCCTAATCCAGTCTTCCGTGTGGAGTACAAGAAGCTAAAGAAAGTGGGAGACTGGATTCTGGCCACC
AGCGCCATCCCCCATCGCGGCTGTCCGTGGAGATCACGGGCTAGAGAAAGGCACCTCCTACAAGTTTCGAGTC
CGGGCTCTGAACATGCTGGGGGAGAGCGAGCCAGCGCCCCCTCTCGGCCCTACGTGGTGTGCGGCTACAGCGGT
CGCGTGTACGAGAGGCGCGTGGCAGGTCTTATATCACCTTACGGATGCGGTCAATGAGACCACCATCATGCTC
AAGTGGATGTACATCCAGCAAGTAACAACAACACCCCAATCCATGGCTTTTATATCTATTATCGACCCACAGAC
AGTGACAATGATAGTACTACAAGAAGGATATGGTGAAGGGGACAAGTACTGGCACTCCATCAGCCACCTGCAG
CCAGAGACCTCCTACGACATTAAGATGCAGTGCTTCAATGAAGGAGGGGAGAGCGAGTTCAGCAACGTGATGATC
TGTGAGACCAAAGCTCGGAAGTCTTCTGGCCAGCCTGGTGCAGTGCACCCCAACTCTGGCCCCACCAAGCGG
CCCTTCTCTGAAACCATAGAGCGCGGCTGGGCATGGGGCCATGGTGGCTCGCTCCAGCGACCTGCCCTATCTG
ATTGTGCGGGTGTCTCTGGGCTCCATCGTTCTCATCATCGTCACCTTCATCCCTTCTGCTTGTGGAGGGCTGG
TCTAAGCAAAAAATACAACAGACCTGGGTTTTCTCGAAGTGCCTTCCACCTCTCTGCCGTATATATGGTG
CCATTGGGAGGACTCCAGGCCACCAGGCCAGTGGACAGCCCTACCTCAGTGGCATCAGTGGACGGGCTGTGCT
AATGGGATCCACATGAATAGGGGCTGCCCTCGGCTGCAAGTGGGCTACCGGGCATGAAGCCCCAGCAGCACTGC
CCAGGCGAGCTTCAGCAGCAGAGTGACACCAGCAGCCTGCTGAGGCGAGCCCATCTGGCAATGGATATGACCCC
CAAAGTCAACAGATCAGAGGGGTCCCAAGTCTAGCCCGAGCAGGGCTCTTTCTTATACACTGCCCCAGCAG
TCCACTCACCAGCTGCTGCAGCCCCATCAGACTGCTGCCAACGCCAGGAGCAGCCTGCTGCTGTGGGCCAGTCA
GGGGTGGAGAGACCCCGACAGTCTGTCTGGAAGCAGTGTGGGACCCTCCATTTCACTCAGGGCCCCCATGC
TGCTTGGGCTTGTGCCAGTTGAAGAGGTGGACAGTCTGACTCTGCCAAGTGAAGTGGAGGAGACTGGTGCCCC
CAGCACCCGCTAGGGGCTTACGTAGGACAGGAACCTGGAATGCAGCTCTCCCGGGGCCACTGGTGGTGTGTCT
TTTGAACACCACCTCTACAATTAGGCAGAGCTGATATCCAGAAAGACTATATATTGTTTTTTTTTAAAA
AAAAAGTCG

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FIGURE 24

MLRGTMTAWRGMRPEVTLACLLLATAGCFADLNEVPQVTVQPASTVQKPGGTIVILGCVVEPPRMNVTWRLNGKEL
NGSDDALGVLI THGTLVITALNNHTVGRIYQCVARMPAGAVASVPATVTLANLQDFKLDVQH VIEVDEGNTAVIAC
HLPESHKPAQVRYSVKQEWLEASRGNYLIMPSGNLQIVNASQEDEGMYKCAAYNPVTQEVKTS GSSDRLRVRRST
AEAARI IYPPEAQTI IIVTKGQSLILECVASGIPPRVTWAKDGSSVTGYNKTRFLLSNLLIDTTSEEDSGTYRCM
ADNGVGQPGAAVILYNVQVFEPPEVTMELS QLVIPWQGS AKLTCEVRGNPPPSVLWLRNAVPLISSQRLRLSRRRA
LRVLSMGPEDEGVYQCMANEVGS AHAVVQLRTSRPSITPRLWQDAELATGTPPVSPSKLGNPEQMLRGQPALPR
PPTSVGPASPQCPGEKGQGAPEAPI ILSSPRTSKTDSYELVWREPRHEGSGRAPILYYVVKHRKVTNSSDDWTIS
GIPANQHRLTLRLDPGSLYEVEMAAYNCAGEGQTAMVTFRTGRRPKPEIMASKEQQIQRDDPGAS PQSSSQPDH
GRLSPPEAPDRPTISTASETSVYVTWIPRGNGGFP IQSFRVEYKKLKKVGDWILATSAIPPSRLSVEITGLEKGT
SYKFRVRALNMLGESEPSAPSRPYVVS GYSGRVYERP VAGPYITFTDAVNETTIMLKWMI PASNNNTPIHGFIYI
YYRPTSDSDNDSDYKKDMVEGDKYWHS ISHLQPETS YDIKMOCFNEGGESEFSNVMICETKARKSSGQPGRLPPPT
LAPPQPPLPETIERPVGTGAMVARSSDLPYLIVGVVLGSIVLIIVTFIPFCLWRAW SKQKHTTDLGFPR SALPPS
CPYTMVPLGGLPGHQASGQPYLSGISGRACANGIHMNRGCP SAAVGYPGMKPQQHCPGELQQQSDTSSLLRQTHL
GNGYDPQSHQITRGPKSSPDEGSFLYTL PDDSTHQLLP HHDCCQRQE QPAAVGQSGVRRAPDSPVLEAVWDPPF
HSGPPCCLGLVPVEEVDS PDSCQVSGGDWCPQH PVGAYVGQEPGMQLSPGPLVRVSFETPPLTI

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FIGURE 25

CTCAGACCATAGCCTAAACCTCATCGTCCCTATCTGGCCACCTGGAGCATCCACCTAGAGGATGCCACTAGAGG
AGCCTGGATGCCCTGTAGAGTCTGGGGGGCTAGAGTCTTCCCTTTTCAGGCCCAAGAAAGGGAATCAGGCAGACTG
CTGAACAGTAAGTATGACTTTGTAGGCAGCCTTTAGACATAGCTATTACCAAGCTACCGTAAGCTTTTCACAGT
TTGCTTTTAACAGGCTCTTGTAGGCTGCACATGCTTCCCTAGAAACTGTCTTCCCTTCTGCGATGTACACCCC
TAAGCTGGTCTGAAAAATTGGACATCTCGTCACTCTGTATTCAGTGTCTTCCCTCCCAACAAGAGAGTTGTACCCTG
TTTTTAGCTACCTGGGGAGAGGCTGGCTCAGGAGTCTAGAACAGGGCTAGATTGGGGGGCAACAAGGGGCTACC
ATTTCCCTCCCTTTAGGCTCATGGAGAGTCTACATCCAGCCTTATCTTCTCCCATGGGAAACCAAGGAGGCTCA
ACATGGTGAGAAGAGAGCATGACATCCAGAGCCAGGCAGCTACAGCACCTGGGACCACCAGGGAATGGGCACAC
AGCAAGGGTTGGCCTCCCTTCTTGGGCAGTGAAAAAGTCCTAGAAGGAGTCCATGCTTCTCCCAACAAACATGA
GTACCTGCTGCCCTTGCCCTTGTGCTGAATGCCAAGGACCAAGAAGATGCCTCCCCACCCAGTGTGGGAAATTC
ACAGGAGTGGCCTGCAGTGCCATCCTCATGTACATATTCTGCACTGATTGCTGGCTCATCGCTGTGCTCTACTTC
ACTTGGCTGGTGTGTTGACTGGAACACACCCAAGAAAGGTGGCAGGAGGTCACAGTGGGTCCGAAACTGGGCTGTG
TGGCGTACTTTTCGAGACTACTTTCCCATCCAGCTGGTGAAGACACACAACCTGCTGACCACCAGGAACATATATC
TTTGATACACCCCCATGGTATCATGGGCCTGGGTGCCTTCTGCAACTTCAGCACAGAGGCCACAGAAGTGAGC
AAGAAGTTCACAGGCATACGGCCTTACCTGGCTACACTGGCAGGCAACTTCCGAATGCCTGTGTTGAGGGAGTAC
CTGATGTCTGGAGGTATCTGCCCTGTGAGCCGGGACACCATAGACTATTGCTTTCAAAGAATGGGAGTGGCAAT
GCTATCATCATCGTGGTTCGGGGGTGCGGCTGAGTCTCTGAGCTCCATGCCTGGCAAGAATGCAGTCACCTGCGG
AACCAGCAAGGGCTTTGTGAAACTGGCCCTGCGTCACTGAGCTGACCTGGTTCCCATCTACTCCTTTGGAGAGAAT
GAAGTGTACAAGCAGGTGATCTTCGAGGAGGGCTCCTGGGGCCGATGGGTCCAGAAGAAGTTCAGAAATACATT
GGTTTCGCCCCATGCATCTTCCATGGTTCGAGGCCTCTTCTCCTCCGACACCTGGGGGCTGGTGCCTACTCCAAG
CCCATCACCCTGTTGTGGGAGAGCCCATCACCATCCCCAAGCTGGAGCACCCAACCCAGCAAGACATCGACCTG
TACCACACCATGTACATGGAAGGCCCTGGTGAAGCTCTTCGACAAGCACAGAAGCAAGTTCGGCCTCCCGGAGACT
GAGGTCTGGAGGTGAATGAGCCAGCCTTCGGGGCCAACTCCCTGGAGGAACCAGCTGCAATCACTTTTTTGC
TCTGTAAATTTGGAAGTGTATGGGTGTCTGTGGGTATTTTAAAGAAATTATAACAATTTTGCTAAACCATTAC
AATGTAGGTCTTTTTTAAGAAGGAAAAAGTCAGTATTTCAAGTCTTTTCACTTCCAGCTTGCCCTGTTCTAGGT
GGTGGCTAAATCTGGGCCTAATCTGGGTGGCTCAGCTAACCTCTCTTCTTCCCTTCCCTGAAGTGACAAAGGAAAC
TCAGTCTTCTGGGGAAGAAGGATTGCCATTAGTGACTGGACCAGTTAGATGATTCACTTTTTTGGCCCTAGGGA
TGAGAGGCGAAAGCCACTTCTCATACAAGCCCTTTTATGGCACTACCCACGCTCGTCTAGTCTGAAACTGCA
GGACCAGTTTCTCTGCCAAGGGGAGGAGTTGGAGAGCACAGTTGCCCCGTTGTGTAGGGCAGTAGTAGGCATCT
GGAATGCTCCAGTTTGATCTCCCTTCTGCCACCCCTACCTCACCCCTAGTCACTCATATCGGAGCCTGGACTGGC
CTCCAGGATGAGGATGGGGGTGGCAATGACACCCTGCAGGGGAAAGGACTGCCCCCATGCACCATTGCAGGGAG
GATGCCGCCACCATGAGCTAGGTGGAGTAACTGGTTTTTCTTGGGTGGCTGATGACATGGATGCAGCACAGACTC
AGCCTTGGCCTGGAGCACATGCTTACTGGTGGCCTCAGTTTACCTTCCCCAGATCCTAGATTCTGGATGTGAGGA
AGAGATCCCTCTTCAGAAGGGGCTGGCCTTCTGAGCAGCAGATTAGTTCCAAAGCAGGTGGCCCCGAACCCAA
GCCTCACTTTTCTGTGCCTTCTGAGGGGGTTGGGCCGGGAGGAAACCCCAACCCTCTCCTGTGTGTCTGTAT
CTCTTGATGAGATCATTGCACCATGTCAGACTTTTGTATATGCCTTGAAAATAAATGAAAGTGAGAATCCAAAAA
AAAAAAAAAAAAA

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FIGURE 26

MYIFCTDCWLI~~AV~~LYFTWL~~V~~FDWNTPKKGGRRSQWVRNWAVWRYFRDYFPIQLVKTHNLLTTRNYIFGYH~~PH~~GIM
GLGAF~~C~~NFSTEATEVSKKFP~~G~~IRPYLATLAGNFRMPVLREYLMSSGGICPVSRDTIDYLLSKNGSGNAIIIVVGA
AESLSSMPGKNAVTLRNRKGFVKLALRHGADLVPIYSFGENEVYKQVIFEEGSGRWVQKKFQKYIGFAPCIFHG
RGLFSSDTWGLVPYSKPITTVVGEPITIPKLEHPTQQDIDLYHTMYMEALVKLFDKHKTKFGLPETEVLEVN

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FIGURE 27

CATCCTGCAACATGGTGAAACCACGCCTGGCTAATTTTGTGTATTTTGGTAGAGATGGGATTTACCGTGTTA
GCCAGGATTGTCTCAATCTGACCTCATGATCTGCCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGAGTGC
AACCACACCCGGCCACAACTTTTTAAGAAGTTAATGAAACCATACTTTTACATTTTAAATGACAGGAAAATGC
TCACAATAATTGTTAACCACAAATTTCTGGATACAAAAGTACAATCTTTACTGTGTAAATACATGTATATGTACTA
TATGAAAATATACCAAATATCAATAATACTTATCTCTGGGTAAAAACCTCTTCTCATACCCTGTGCTAACAATT
TTAACAAAAAATTTGCATCACTTTTAAGAATCAAGAAAAATTTCTGAAGGTCATATGGGACAGAAAAAAAACCA
AGGGAAAAATCACGCCACTTGGGAAAAAAGATTGGAATCTGCCTTTTATAGATTTGTAATTAATAAGGTCCA
GGCTTTCTAAGCAACTTAAATGTTTTGTTTCGAAACAAAGTACTTGTCTGGATGTAGGAGGAAAGGGAGTGATGT
CACTGCCATTATGATGCCCTTGAATATAAGACCCCTACTTGCTATCTCCCCTGCACCAGCCAGGAGCCACCCATC
CTCCAGCACACTGAGCAGCAAGCTGGACACACGGCACACTGATCCAAATGGGTAAGGGGATGGTGGCGATGCTCA
TTCTGGGTCTGCTACTTCTGGCGCTGCTCCTACCCGTGCAGGTTTCTTCATTTGTTCCTTTAACCAGTATGCCGG
AAGCTACTGCAGCCGAAACCACAAAGCCCTCCAACAGTGCCCTACAGCCTACAGCCGGTCTCCTTGTGGTCTTGC
TTGCCCTTCTACATCTCTACCATTAAGAGGCAGGTCAAGAAACAGCTACAGTTCTCCAACCCATACACTAAAACC
GAATCCAAATGGTGCCTAGAAGTTCAATGTGGCAAGGAAAAAACCAGGTCTTCATCAATCTACTAATTTCACT
CCTTATTAACAGAGAAACGCTTGAGAGTCTCAAAC TGACTGGTTTAAAGAGCATCTGAAGGATTTGACTAGATG
ATAAATGCCTGTACTCCCAGTACTTTGGGAGGCCTAGGCCGGCGGATCACCTGAGGTCAGGAGTTTGAGACTAAC
CTGGCCAAAATGGTGAAACCCCATCTGTACTAAAAATACAAATATTGACTGGGCGTGGTGGTGAGTGCCTGTGAT
CCCAGCTACTCAGGTGGCTGAAGCAGGACAATCACTTGAACCTCAGGAGGCAGAGGTTGCAGTGAGCTGAGATCGC
GCTACTGCACCTTAGCCTAGCCTGGGCAACAGAGTGAGACTTCGTCTCAAAAAAAAAAAGCCAAGTGCAGTGGC
TCACGCCTGTAATCCCGGCACTTTGGGAGGCCGAGGTGGGCGGATCACGAGGTCAGGAGATCAAGACCATCCTGG
CTAATACAGTGAAACCCGTCTCTACTAAAAATACAAAAATTAGCCGGGGATGGTGGCAGGCACCTGGAGTCCC
AGCTACTCGGGAGGCTGAGGCAGGAGATAGCGTGAACCTCAGGAGCGGAGCTTGCAGTGAGCCGAGATTGCGCT
ACTGCACTCCAGCCTGGGCGACAGCGGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 28

MKGGMVAMLILGLLLLALLLPVQVSSFVPLTSMPEATAAETTKPSNSALQPTAGLLVVLLALLHLYH

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FIGURE 29

GGCACGAGGAGGTGTGGACGCTGTGTATGAAATGCTTTTCCTCCAGGACCCAAGTTTCTTCACCATGGGGATGTG
GTCCATTGGTGCAGGAGCCCTGGGGGCTGCTGCCTTGGCATTGCTGCTTGCCAACACAGACGTGTTTCTGTCCAA
GCCCCAGAAAGCGGCCCTGGAGTACCTGGAGGATATAGACCTGAAAACACTGGAGAAGGAACCAAGGACTTTCAA
AGCAAAGGAGCTATGGGAAAAAATGGAGCTGTGATTATGGCCGTGCGGAGGCCAGGCTGTTTCTCTGTGCGAGA
GGAAGCTGCGGATCTGTCTCCCTGAAAAGCATGTGGACCAGCTGGGCGTCCCCCTCTATGCAGTGGTAAAGGA
GCACATCAGGACTGAAGTGAAGGATTTCCAGCCTTATTTCAAAGGAGAAATCTTCTGGATGAAAAGAAAAAGTT
CTATGGTCCACAAAGGCGGAAGATGATGTTTATGGGATTTATCCGTCTGGGAGTGTGGTACAACCTTCTTCCGAGC
CTGGAACGGAGGCTTCTCTGGAACCTGGAAGGAGAAGGCTTCATCCTTGGGGGAGTTTTTCGTGGTGGGATCAGG
AAAGCAGGGCATTCTTCTTGAGCACCGAGAAAAAGAATTTGGAGACAAAGTAAACCTACTTTCTGTTCTGGAAGC
TGCTAAGATGATCAAACCACAGACTTTGGCCTCAGAGAAAAATGATTGTGTGAAACTGCCCAGCTCAGGGATAA
CCAGGGACATTACCTGTGTTCATGGGATGTATTGTTTCCACTCGTGTCCCTAAGGAGTGAGAAACCCATTTATA
CTCTACTCTCAGTATGGATTATTAATGTATTTTAAATTTCTGTTTAGGCCCACTAAGGCAAAATAGCCCCAAAC
AAGACTGACAAAAATCTGAAAACTAATGAGGATTATTAAGCTAAAACCTGGGAAATAGGAGGCTTAAATTTGAC
TGCCAGGCTGGGTGCAGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCAAGGTGAGCAAGTCACCTGAGG
TCGGGAGTTTCGAGACCAGCCTGAGCAACATGGCGAAACCCCGTCTCTACTAAAAATACAAAAATCACCCGGGTGT
GGTGGCAGGCACCTGTAGTCCAGCTACCCGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGTGGAGGT
TGCGGTGAGCTGAGATCACACCACTGTATTCCAGCCTGGGTGACTGAGACTCTAACTAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 30

MWSIGAGALGAAALALLANTDVFLSKPQKAALEYLEDIDLKTLKEPRTFKAKELWEKNGAVIMAVRRPGCFLC
REEAADLSSLKSMLDQLGVPLYAVVKEHIRTEVKDFQPYFKGEIFLDEKKKFYGPQRRKMMFMGFIRLGWYNFF
RAWNGGFSGNLEGEFILGGVFVVGSGKQGILLEHREKEFGDKVNLLSVLEAAKMIKPQTLASEKK

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FIGURE 31

GTGTGGGGAAGGTAGATGTCATTCAAGAACCAGGTTTGAGTGGCCGCTTCTTTGTCACCACTCTCCCAGCATTTT
TTCATGCAAAGGATGGGATATTCCGCCGTATCGTGGCCCAGGAATCTTCGAAGACCTGCAGATTATATCTTAG
AGAAGAAATGGCAATCAGTCGAGCCTCTGACTGGCTGGAAATCCCCGGCTTCTCTAACGATGCTCTGGAATGGCTG
GTCCTTTTAGCATCTCTGGCAAGATATGGCATCTTCACAACTATTTACAGTGACTCTTGGAATTCCCTGCTTGGT
GTTCTTATGCTTTTTTCGTCATAGCCACCTTGGTTTTTGGCCTTTTTATGGGTCTGGTCTTGGTGGTAATACAG
AATGTTTTCTATGTGCCACTTCCAAGGCATTATCTGAGCGTTCTGAGCAGAATCGGAGATCAGAGGAGGCTCATA
GAGCTGAACAGTTGCAGGATGCGGAGGAGGAAAAAGATGATTCAAATGAAGAAGAAAAACAAAGACAGCCTTGTA
ATGATGAAGAAGAGAAAAGAAGATCTTGGCGATGAGGATGAAGCAGAGGAAGAAGAGGAGGAGGACAACCTTGGCTG
CTGGTGTGGATGAGGAGAGAAGTGAGGCCAATGATCAGGGGCCCCCAGGAGAGGACGGTGTGACCCGGGAGGAAG
TAGAGCCTGAGGAGGCTGAAGAAGGCATCTCTGAGCAACCTGCCAGCTGACACAGAGGTGGTGAAGACTCCT
TGAGGCAGCGTAAAAGTCAGCATGCTGACAAGGGACTGTAGATTAAATGATGCGTTTTCAAGAATACACACCAAA
ACAATATGTCAGCTTCCCTTTGGCCTGCAGTTTGTACCAAATCCTTAATTTTCTGAATGAGCAAGCTTCTCTT
AAAAGATGCTCTCTAGTCATTTGGTCTCATGGCAGTAAGCCTCATGTATACTAAGGAGAGTCTTCCAGGTGTGAC
AATCAGGATATAGAAAAACAAACGTAGTGTGGGATCTGTTTGGAGACTGGGATGGGAACAAGTTCAATTTACTTA
GGGGTCAGAGAGTCTCGACCAGAGGAGGCCATTCCAGTCCTAATCAGCACCTTCCAGAGACAAGGCTGCAGGCC
CTGTGAAATGAAAGCCAAGCAGGAGCCTTGGCTCCTGAGCATCCCCAAAGTGTAACGTAGAAGCCTTGCATCCTT
TTCCTGTGTAAAGTATTTATTTTTGTCAAATTGCAGGAAACATCAGGCACCACAGTGCATGAAAAATCTTTCACA
GCTAGAAATTGAAAGGGCCTTGGGTATAGAGAGCAGCTCAGAAGTCATCCCAGCCCTCTGAATCTCCTGTGCTAT
GTTTTATTTCTTACCTTTAATTTTTCCAGCATTTCACCATGGGCATTGAGGCTCTCCACACTCTTCACTATTAT
CTCTTGGTCAGAGGACTCCAATAACAGCCAGGTTTACATGAAGTGTGTTTGTTCATTCTGACCTAAGGGGTTTAG
ATAATCAGTAACCATACCCCTGAAGCTGTGACTGCCAAACATCTCAAATGAAATGTTGTGGCCATCAGAGACTC
AAAAGGAAGTAAGGATTTTACAAGACAGATTAAAAAAAATGTTTTGTCCAAAATATAGTTGTTGTTGATTTTT
TTTTAAGTTTTCTAAGCAATATTTTTCAAGCCAGAAGTCTCTAAGTCTTGCCAGTACAAGGTAGTCTGTGAAG
AAAAGTTGAATACTGTTTTGTTTTCATCTCAAGGGGTTCCCTGGGTCTTGAAGTACTTTAATAATACTAAAAAA
CCACTTCTGATTTTCTTTCAGTGATGTGCTTTTGGTGAAAGAATTAATGAAGTCCAGTACCTGAAAGTGAAAGAT
TTGATTTTGTTCATCTCTGTAACTTCCAAAGAATTATCTTTGTAAATCTCTCAATACTCAATCTACTGT
AAGTACCCAGGAGGCTAATTTCCCTTAAAAAAAATCTATCCATCTACTTCTCTTACCTGATTTATGTGT
TAGAATAAATTCATGAAATTCGATTCCAAGCATA

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FIGURE 32

MSGMAGLFSISGKIWHLHNYFTVTLGIPAWCSYVFFVIATLVFGLFMGLVLVVISSECFYVPLPRHLSERSEQNRR
SEEAHRAEQLQDAEEEEKODSNEEENKDSLVDDEEEKEDLGDEDEAEEDNLAAGVDEERSEANDQGPPGEDG
VTREEVEPEEAEEGISEQPCPADTEVVEDSLRQRKSQHADKGL

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FIGURE 33

CCCTTTAAAGGGTGACTCGTCCCACCTTGTGTTCTCTCTCCTGGTGCAGAGTTGCAAGCAAGTTTATCAGAGTATC
GCCATGAAGTTTCGTCCCCTGCCTCCTGCTGGTGACCTTGTCTGCCTGGGGACTTTGGGTCAGGCCCCGAGGCAA
AAGCAAGGAAGCACTGGGGAGGAATTCCATTTCCAGACTGGAGGGAGAGATTCTTGCCTATGCGTCCCAGCAGC
TTGGGGCAAGGTGCTGGAGAAGTCTGGCTTCGCGTCGACTGCCGCAACACAGACCAGACCTACTGGTGTGAGTAC
AGGGGGCAGCCAGCATGTGCCAGGCTTTTGTGCTGACCCCAACCTTACTGGAATCAAGCCCTGCAGGAGCTG
AGGCGCCTTCACCATGCGTGCCAGGGGGCCCCGCTGCTTAGGCCATCCGTGTGCAGGGAGGCTGGACCCAGGCC
CATATGCAGCAGGTGACTTCCAGCCTCAAGGGCAGCCAGAGCCCAACCAGCAGCCTGAGGCTGGGACGCCATCT
CTGAGGCCCCAAGGCCACAGTGAACTCACAGAAGCAACACAGCTGGGAAAGGACTCGATGGAAGAGCTGGGAAAA
GCCAAACCCACACCCGACCCACAGCCAAACCTACCCAGCCTGGAGCCAGGCCCCGAGGGAATGAGGAAGCAAAG
AAGAAGGCCTGGGAACATTGTTGGAAACCCTTCCAGGCCCTGTGCGCCTTTCTCATCAGCTTCTTCCGAGGGTGA

CAGGTGAAAGACCCCTACAGATCTGACCTCTCCCTGACAGACAACCATCTCTTTTATATTATGCCGCTTTCAAT
CCAACGTTCTCACACTGGAAGAAGAGAGTTTCTAATCAGATGCAACGGCCCCAAATTCTTGATCTGCAGCTTCTCT
GAAGTTTGAAAAGAAACCTTCCTTTCTGGAGTTTGACAGAGTTTACGAATATGATAGGGAACAGGTGCTGATGGG
CCCAAGAGTGACAAGCATACAACTACTTATTATCTGTAGAAGTTTGCTTTGTTGATCTGAGCCTTCTATGAA
AGTTTAAATATGTAACGCATTTCATGAATTTCCAGTGTTTCAAGTAAATAGCAGCTATGTGTGTGCAAAATAAAGAA
TGATTTCAGAAAT

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FIGURE 34

MKFVPCLLLVTLSCGLTGGAPRQKQGSTGEEFHFQTGGRDSCIMRPSSLGQGAGEVWLRVDCRNTDQTYWCEYR
GQPSMCQAFADPKPYWNQALQELRRLHHACQGAPVLRPSVCREAGPQAHMQQVTSSLKGSPEPNQQPEAGTPSL
RPKATVKLTEATQLGKDSMEELGKAKPTTRPTAKPTQPGPRPGGNEEAKKKAWHCWKPFQALCAFLISFFRG

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FIGURE 35

GTTTGGTTTCGGGCCCTTGCAAAACCCGAGATGATGAGCCTGTGTGTTGGGAGACCCCTGGGTATCCGTGCAGGGCC
CAATGGGACTCTCTTTGTGGCCGATGCATACAAGGGACTATTTGAAGTAAATCCCTGGAAACGTGAAGTGAACT
GCTGCTGTCTCCGAGACACCCATTGAGGGGAAGAACATGTCCTTTGTGAATGATCTTACAGTCACTCAGGATGG
GAGGAAGATTATTTACCGATTCTAGCAGCAAATGGCAAAGACGAGACTACCTGCTTCTGGTGATGGAGGGCAC
AGATGACGGGCGCCTGCTGGAGTATGATACTGTGACCAGGGAAGTAAAGTTTTATTGGACCAGCTGCGGTTCCT
GAATGGAGTCCAGCTGTCTCCTGCAGAAGACTTTGTCTGGTGGCAGAAACAACCATGGCCAGGATACGAAGAGT
CTACGTTTTCTGGCCTGATGAAGGGCGGGGCTGATCTGTTTGTGGAGAACATGCCTGGATTTCAGACAACATCCG
GCCCAGCAGCTCTGGGGGGTACTGGGTGGGCATGTGACCATCCGCCCTAACCTGGGTTTTCCATGCTGGATTT
CTTATCTGAGAGACCCCTGGATTAAAAGGATGATTTTAAAGCTCTTTAGTCAAGAGACGGTGATGAAGTTTGTGCC
GCGGTACAGCCTCGTCCTAGAACTCAGCGACAGCGGTGCCTTCCGGAGAAGCCTGCATGATCCCAGTGGGCTGGT
GGCCACCTACATCAGCGAGGTGCACGAACACGATGGGCACCTGTACCTGGGCTCTTTCAGGTCCCCCTTCCTCTG
CAGACTCAGCCTCCAGGCTGTTTTAGCCCTCCAGATAGCTGCCCTGCCACGCAGGCCAGGAGTCTTCACACTCA
GGCACCAGGCCTGGTCCAGGAGGAGCTGTGGACACAGTCTGTTCAAGTGTCCACATGCACCTGTTAGTCCCTG
AGAGGTGGTGGGAATGGCTGCTTCATTCCTCGAGGATGCCCGGGCCCCACCTGGGCTTGTCTTCTGTTTAGAGG
GAAGTGTAACATATCTGCCATGAGGAACATAAATTATGTAAAGCCATTTTCTCTTAAACAAAACAAAACTTTCT
AAGTACAGTCATTCTCTAGGATTTGGGAAGCTCCTTGCACTTGGAACAGGGCTCAGGTGGGTGGAGCAGTAAGGC
ACTACCCAGAGAGCTTGCTGCTGCGGCCCTGTCTGCGGCCTCAAAGTTCTTCTTTACTATATATAACGTGCGGT
CATACCTTTCTTCGTTGTGGTGGGGATGGAAGAGCAGAGGGAGCATGGCCCAGGGGTGTTGAGGCCAGCGGTGAG
AGCCGTGTTAGCCAAGACATGGAAGTGTGTTCTCAAGGGTATGTGGGGCGTGGGCTCTCCATAGTGTGTATGAA
AAGCTTGTTGACTCTAGCGGCTCAGAGAGGACTTTGCTGGGTTTCTTTCTGTGAATATCTCCGTGCTGACCATGC
TGGAATTGGATGATTCTGCAATTCGGGACCTACTGCAGGGGTCCGTTTAGTAACGTCTTGTCTGTGATCTTTGTT
CTTGACCTCTAGACCCCAAGATGTGAACAGTGACGCTGTTAATGTCATCTTTGCTCATGTGTTATAAGCCCCAAG
TTGCTGTATATTTTACAAGTATGTCTACACACTGGTCATGATTTTGATAATAATAACGATAAATCGAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 36

MSFVNDLTVTQDGRKIYFTDSSSKWQRRDYLLLVMEGTDDGRLLEYDTVTREVKVLLDQLRFPNGVQLSPAEDFV
LVAETTMARIRRVYVSGLMKGGADLFVENMPGFPDNIRPSSSGGYWVGMSTIRPNPGFSMLDFLSERPWIKRMIF
KLFSQETVMKFVPRYSLVLELSDSGAFRRSLHDPDGLVATYISEVHEHDGHLYLGSFRSPFLCRLSLQAV

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FIGURE 37

GCCCCGAGAGCCGCATCTATTGGCAGCTTTGTTATTGATCAGAACTGCTCGCCGCCGACTTGGCTTCCAGTCTG
GCTGCGGGCAACCCCTTGAGTTTTTCGCCTCTGTCTGTCCCCGAACTGACAGGTGCTCCCAGCAACTTGTGTTGGG
ACTTCTCGCCGCTCCCCCGCTCCCCACCCCTCATTCCTCCCTCGCCTTACCCCCACCCCACTTCCGCCA
CAGCTCAGGATTTGTTTAAACCTTGGGAACTGGTTCCAGGTCCAGGTTTTGCTTTGATCCTTTTCAAAAAGTGA
GACACAGAAGAGGGCTCTAGGAAAAAGTTTTGGATGGGATTATGTGGAAGTACCTGCGATTCTGTGCTGCCAG
AGCAGGCTCGGCGCTTCCACCCAGTGCAGCCTTCCCTGGCGGTGGTGAAGAGACTCGGGAGTCTGCTGCTTCC
AAAGTGCCCGCCGTGAGTGAGCTCTACCCAGTGCAGCAAATGAGCCTTTCGGGCTTCTCCTGCTGACATCTG
CCCTGGCCGCCAGAGACAGGGGACTCAGGCGGAATCCAACCTGAGTAGTAAATTCCAGTTTTCCAGCAACAAGG
AACAGAACGGAGTACAAGATCCTCAGCATGAGAGAATTATTACTGTGTCTACTAATGGAAGTATTCACAGCCCAA
GGTTTCTCATACTTATCCAAGAAATACGGTCTTGGTATGGAGATTAGTAGCAGTAGAGGAAAATGTATGGATAC
AACTTACGTTTGATGAAAGATTTGGGCTTGAAGACCCAGAAGATGACATATGCAAGTATGATTTTGTAGAAGTTG
AGGAACCCAGTGATGGAACATATATTAGGGCGCTGGTGTGGTTCTGGTACTGTACCAGGAAAACAGATTTCTAAAG
GAAATCAAATTAGGATAAGATTTGTATCTGATGAATATTTTCTTCTGAACCAGGGTTCTGCATCCACTACAACA
TTGTCATGCCACAATTCACAGAAGCTGTGAGTCCTTCACTGCTACCCCTTCAGCTTTGCCACTGGACCTGCTTA
ATAATGCTATAACTGCCCTTTAGTACCTTGGAGACCTTATTCGATATCTTGAACCAGAGAGATGGCAGTTGGACT
TAGAAGATCTATATAGGCCAATTTGGCAACTTCTTGGCAAGGCTTTGTTTTTGGGAAGAAAATCCAGAGTGGTGG
ATCTGAACCTTCTAACAGAGGAGGTAAAGATTATACAGCTGCACACCTCGTAACCTTCTCAGTGTCATAAGGGAAG
AACTAAAGAGAACCAGATACCATTTTCTGGCCAGGTGTCTCCTGGTTAAACGCTGTGGTGGGAACCTGTGCCTGTT
GTCTCCACAATTGCAATGAATGTCAATGTGTCCCAAGCAAAGTTACTAAAAAATACCACGAGGTCCTTCAGTTGA
GACCAAAGACCGGTGTGAGGGGATTGCACAAATCACTACCGACGTGGCCCTGGAGCACCATGAGGAGTGTGACT
GTGTGTGCAGAGGGGAGCACAGGAGGAATAGCCGCATCACCACAGCAGCTCTTGCCAGAGCTGTGCAGTGCAGTG
GCTGATTCTATTAGAGAACGTATGCGTTATCTCCATCCTTAATCTCAGTTGTTTGCTTCAAGGACCTTTTATCTT
CAGGATTTACAGTGCATTCTGAAAGAGGAGACATCAACAGAATTAGGAGTTGTGCAACAGCTCTTTTGAGAGGA
GGCCTAAAGGACAGGAGAAAAGGTCTTCAATCGTGAAAGAAAATTAATGTTGTATTAAATAGATCACCAGCTA
GTTTCAGAGTTACCATGTACGTATTCCTAGCTGGGTCTGTATTTCACTTCTTTCGATACGGCTTAGGGTAAT
GTCAGTACAGGAAAAAACTGTGCAAGTGAGCACCAGTTCGTTGCTTGAATCTAAAGCTCCATGTCCT
GGGCCTAAATCGTATAAAATCTGGATTTTTTTTTTTTTTTTGTCTCATATTCACATATGTAAACCAGAACATTC
TATGTACTACAAACCTGGTTTTTAAAAAGGAAGTATGTTGCTATGAATTAACTTGTGTCTGTGCTGATAGGACAG
ACTGGATTTTTCATATTTCTATTAAATTTCTGCCATTTAGAAGAAGAGAACTACATTCATGGTTTTGAAGAGA
TAAACCTGAAAAGAAGAGTGGCCTTATCTTCACTTTATCGATAAGTCAGTTTATTTGTTTTATTGTGTACATTTT
TATATTCTCCTTTTGACATTATAACTGTTGGCTTTCTAATCTTGTAAATATATCTATTTTTTACCAAAGGTATT
TAATATTCTTTTTTATGACAACTTAGATCAACTATTTTTAGCTTGGTAAATTTTTCTAAACACAATTGTTATAGC
CAGAGGAACAAAGATGATATAAAATATTGTTGCTCTGACAAAAATACATGTATTTTCACTTCTCGTATGGTGCTAGA
GTTAGATTAATCTGCATTTTAAAAAACTGAATTGGAATAGAATTGGTAAAGTTGCAAAGACTTTTTGAAAAATAATT
AAATTATCATATCTTCCATTCCCTGTTATTGGAGATGAAAATAAAAGCAACTTATGAAAGTAGACATTAGATCC
AGCCATTACTAACCTATTCCTTTTTTGGGGAAATCTGAGCCTAGCTCAGAAAAACATAAAGCACCTTGAAAAAGA
CTTGGCAGCTTCTGATAAAGCGTGCTGTGCTGTGCGAGTAGGAACACATCCTATTTATTGTGATGTTGTGGTTTT
ATTATCTTAACTCTGTTCCATACACTTGTATAAAATACATGGATATTTTTATGTACAGAAGTATGTCTCTTAACC
AGTTCACTTATTGTACTCTGGCAATTTAAAGAAAATCAGTAAAATATTTTGCTTGTAAATGCTTAATATCGTG
CCTAGGTTATGTGGTGACTATTTGAATCAAAAATGTATTGAATCATCAAATAAAAGAATGTGGCTATTTTGGGGA
GAAAATT

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FIGURE 38

MSLFGLLLLSALAGQRQGTQAESNLSSKFQFSSNKEQNGVQDPQHERIITVSTNGSIHSPRFPHTYPRNTVLVW
RLVAVEENVWIQLTFDERFGLEDPEDDICKYDFVEVEEPSDGTILGRWCGSGTVPGKQISKGNQIRIRFVSDEYF
PSEPGFCIHYNIVMPQFTEAVSPSVLPSPALPLDLLNNAITAFSTLEDLIRYLEPERWQDLEDLYRPTWQLLGK
AFVFGRKSRVVDLNLLEEVRLYSCTPRNFSVSIREELKRTDTIFWPGCLLVKRCGGNCACCLHNCNECQCVPSK
VTKKYHEVLQLRPKTGVRGLHKS LTDVALEHHEECDVCRCGSTGG

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FIGURE 39

GGGGGCCCTCTGCCCGGTTGTCCAAGATGGAGGGCGCTCCACCGGGTTCGCTCGCCCTCCGGCTCCTGCTGTTT
GTGGCGCTACCCGCCTCCGGCTGGCTGACGACGGGCGCCCCGAGCCGCCGCGCTGTCCGGAGCCCCACAGGAC
GGCATCAGAAATTAATGTAACACTGAAAGATGATGGGGACATATCTAAACAGCAGGTTGTTCTTAACATAACC
TATGAGAGTGGACAGGTGTATGTAAATGACTTACCTGTAAATAGTGGTGAACCCGAATAAGCTGTCAGACTTTG
ATAGTGAAGAATGAAAATCTTGAAAATTTGGAGGAAAAAGAATATTTTGAATTGTCAGTGTAAAGGATTTTAGTT
CATGAGTGGCCTATGACATCTGGTTCCAGTTTGCAACTAATTGTCATTCAAGAAGAGGTAGTAGAGATTGATGGA
AAACAAGTTCAGCAAAAGGATGTCAGTGAATTTGATATTTTAGTTAAGAACCAGGGGAGTACTCAGACATTCAAAC
TATACCCCTCCCTTTGGAAGAAAGCATGCTCTACTCTATTTCTCGAGACAGTGACATTTTATTTACCCCTTCCTAAC
CTCTCCAAAAAAGAAAGTGTAGTTCACTGCAAACCACTAGCCAGTATCTTATCAGGAATGTGGAAACCACTGTA
GATGAAGATGTTTTACCTGGCAAGTTACCTGAAACTCCTCTCAGAGCAGAGCCGCCATCTTCATATAAGGTAATG
TGTCAGTGGATGGAAAAGTTTAGAAAAGATCTGTGTAGGTTCTGGAGCAACGTTTTCCAGTATTCTTTCAGTTT
TTGAACATCATGGTGGTTGGAATTACAGGAGCAGCTGTGGTAATAACCATCTTAAAGGTGTTTTCCAGTTTCT
GAATACAAAGGAATCTTCAGTTGGATAAAGTGGACGTCATACCTGTGACAGCTATCAACTTATATCCAGATGGT
CCAGAGAAAAGAGCTGAAAACCTTGAAGATAAAACATGTATTTAAACGCCATCTCATATCATGGACTCCGAAGT
AGCCTGTTGCCTCCAAATTTGCCACTTGAATATAATTTCTTTAAATCGTTAAGAATCAGTTTCAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 40

MEGAPPGSLALRLLLFVALPASGWLITGAPEPPPLSGAPQDGIRINVTTLKDDGDISKQQVVLNITYESGQVYVN
DLPVNSGVTRISCQTLIVKNENLENLEEKEYFGIVSVRILVHEWPM TSGSSLQLIVIQEEVVEIDGKQVQQK DVT
EIDILVKNRGVLRHSNYTLPLEESMLYSISRSDILFTLPNLSKKESVSSLQTTSQYLIRNVETT VDEDVLP GKL
PETPLRAEPPSSYKVMCQWMEKFRKDLCRFWSNVFPVFFQFLNIMVVGITGAADVITILKVFFPVSEYKGILQLD
KVDVIPVTAINLYPDGPEKRAENLEDKTCI

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FIGURE 41

CTGAGCGGGGAGCGGCGGGCCCCAGCTGAATGGGCGCGAGAGCGGCGCTGGGGGCGGGTGGGGGCGCGGGGTAC
CGGGCTGGCGGCCGGCCGGCGCCCCCTCATTAGTATGCGGACGAAGGCGGCGGGCTGCGCGGAGCGGCGTCCCCCT
GCAGCCGCGGACCGAGGCAGCGGCGGCACCTGCCGGCCGAGCAATGCCAAGTGAGTACACCTATGTGAAACTGAG
AAGTGATTGCTCGAGGCCTTCCCTGCAATGGTACACCCGAGCTCAAAGCAAGATGAGAAGGCCAGCTTGTTATT
AAAAGACATCCTCAAATGTACATTGCTTGTGTTTGGAGTGTGGATCCTTTATATCCTCAAGTTAAATTATACTAC
TGAAGAATGTGACATGAAAAAATGCATTATGTGGACCCTGACCGTGTAAGAGAGAGCTCAGAAATATGCTCAGCA
AGTCTTGCAAGGAATGTCGTCCCAAGTTTGCCAAGACATCAATGGCGCTGTTATTTGAGCACAGGTATAGCGT
GGACTTACTCCCTTTTGTGCAAGGCCCCCAAAGACAGTGAAAGCTGAGTCCAAGTACGATCCTCCTTTTGGGTT
CCGGAAGTTCTCCAGTAAAGTCCAGACCTCTTGGAACTCTTGCCAGAGCACGACCTCCCTGAACACTTGAAAGC
CAAGACCTGTCGGCGCTGTGTGGTTATTGGAAGCGGAGGAATACTGCACGGATTAGAACTGGGCCACACCTGAA
CCAGTTCGATGTTGTGATAAGGTTAAACAGTGCACAGTTGAGGGATATTGAGAACATGTTGGAATAAACTAC
TATAAGGATGACTTATCCAGAGGGCGCACCAGTGTCTGACCTTGAATATTATTCCATGACTTATTTGTTGCTGT
TTTATTTAAGAGTGTGATTTCAACTGGCTTCAAGCAATGGTAAAAAGGAAACCTGCCATTCTGGGTACGACT
CTTCTTTTGAAGCAGGTGGCAGAAAAATCCCAGTGCAGCCAAAACATTTCAGGATTTTGAATCCAGTTATCAT
CAAAGAGACTGCCTTTGACATCCTTCAGTACTCAGAGCCTCAGTCAAGGTTCTGGGGCCGAGATAAGAACGTCCC
CACAATCGGTGTCATTGCCGTTGTCTTAGCCACACATCTGTGCGATGAAGTCAGTTTGGCGGGTTTGGATATGA
CCTCAATCAACCCAGAACACCTTTCAGTACTTCGACAGTCAATGCATGGCTGCTATGAACCTTCAGACCATGCA
TAATGTGACAACGGAACCAAGTTCCTCTTAAAGCTGGTCAAAGAGGGAGTGGTGAAAGATCTCAGTGGAGGCAT
TGATCGTGAATTTTGAACACAGAAAACCTCAGTTGAAAATGCAACTCTAAGTCTGAGAGCTGTTTTTGACAGCCT
TCTTGATGATTTCTCCATCCTGCAGATACTTTGAAGTGCAGCTCATGTTTTTAACCTTTAATTTAAAAACACAA
AAAAAATTTTAGCTCTTCCCCTTTTTTTTTCTATTTAATTGAGGTGAGTGTGTTTTTGCACACCATTTTGT
AAATGAACTTAAAGAAATTGAATTGAAAGACTTCTCAAAGAGAATTGTATGTAACGATGTTGTATTGATTTTAA
GAAAGTAATTTAATTTGTAACCTTCTGCTCGTTTACACTGCACATTGAATACAGGTAACATAATTGGAAGGAGAG
GGGAGGTCACTCTTTTGATGGTGGCCCTGAACCTCATTCTGGTTCCCTGCTGCGCTGCTTGGTGTGACCCACGGA
GGATCCACTCCCAGGATGACGTGCTCCGTAGCTCTGCTGCTGATACTGGGTCTGCGATGCAGCGGCGTGAGGCCT
GGGCTGGTTGGAGAAGGTCAACCCCTTCTCTGTTGGTCTGCCTTCTGCTGAAAGACTCGAGAACCAACCAGGGA
AGCTGTCTGGAGGTCCCTGGTCGGAGAGGGACATAGAATCTGTGACCTCTGACAACTGTGAAGCCACCCTGGGC
TACAGAAACCACAGTCTTCCCAGCAATTATTACAATCTTGAATTCCTTGGGGATTTTTTACTGCCCTTTCAAAG
CACTTAAGTGTAGATCTAACGTGTTCCAGTGTCTGTCTGAGGTGACTTAAAAAATCAGAACAAAACCTTCTATTA
TCCAGAGTCATGGGAGAGTACACCCTTCCAGGAATAATGTTTTGGGAAACACTGAAATGAAATCTTCCCAGTAT
TATAAATTGTGATTTAAAAAAAAGAACTTTTCTGAATGCCTACCTGGCGGTGTATACCAGGCAGTGTGCCAGT
TTAAAAAGATGAAAAAGAATAAAAACTTTTGAGG

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FIGURE 42

MRRPSLLKDKCTLLVFGVWILYILKLNVTTEECMDMKMHYVDPDRVKRAQKYAQQVLQKECRPKFAKTSMAL
LFEHRYSDLLPFVQKAPKDSEAESKYDPPFGFRKFSSKVQTLLELLPEHDLPEHLKAKTCRRCVVIGSGGILHG
LELGHTLNQFDVVIRLNSAPVEGYSEHVGNKTTIRMTYPEGAPLSDLEYYSNDLFVAVLFKSVDNWLQAMVKKE
TLPFWVRLFFWKQVAEKIPLQPKHFRI LNPV I I K E T A F D I L Q Y S E P Q S R F W G R D K N V P T I G V I A V V L A T H L C D E V
S L A G F G Y D L N Q P R T P L H Y F D S Q C M A A M N F Q T M H N V T T E T K F L L K L V K E G V V K D L S G G I D R E F